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ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1905,

INCLUDING A

SUMMARY OF THE ANNUAL REPORTS OF THE
DISTRICT MEDICAL OFFICERS OF HEALTH.

BY


C. W. F. YOUNG, M.D., D.P.H.,

County Medical Officer of Health.

London:

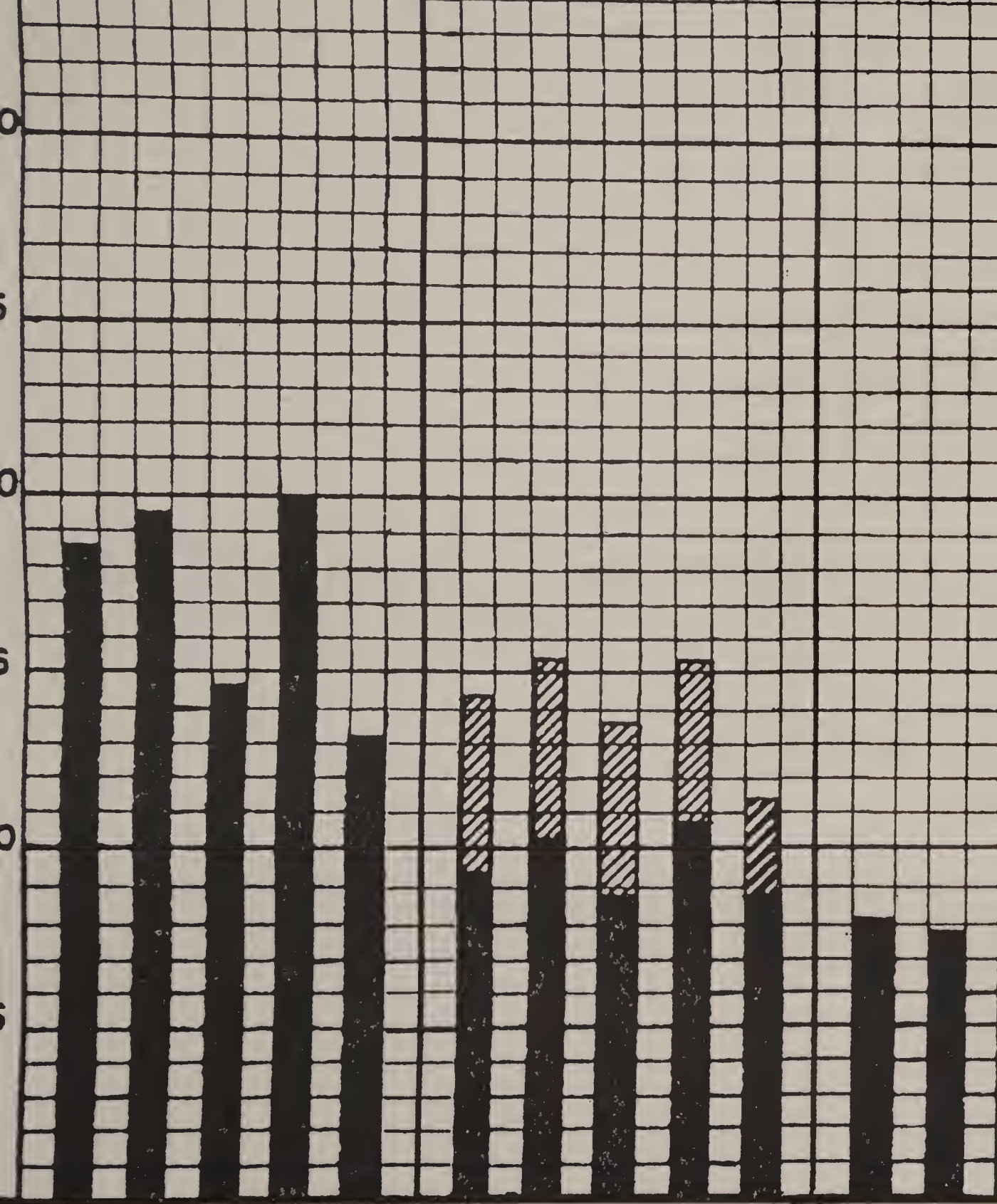
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TO THE COUNTY COUNCIL OF MIDDLESEX.

SIR, MY LORDS AND GENTLEMEN,

I have the honour to present to you my Annual Report on the health of, and the sanitary administration in, the County of Middlesex during the year 1905.

The number of annual reports received from the district medical officers of health is 36, an increase of two as compared with the previous year, owing to the fact that for 1905 there were separate reports for the newly-constituted urban districts of Hayes and Ruislip-Northwood respectively, both of which formerly formed part of the rural district of Uxbridge. All the reports have this year been printed except that relating to Sunbury, which is lithographed. I have previously commented on the importance

of the reports of the medical officers of health being printed if they are to receive from local authorities the consideration which they deserve, and if they are to be available for those members of the community who desire to inform themselves as to the health and sanitary administration of the districts in which they reside. It is therefore satisfactory that all the authorities have now appreciated the desirability of having copies of the reports of their medical officers of health available for public use.

In this year's report I have preserved the form adopted for 1904, and have continued the tables and diagrams relating to the vital statistics of the County, which were then given for the first time. In addition, as the result of the weekly records of notifications of infectious disease which I initiated at the commencement of 1905, it has been possible for me to give charts showing the variation week by week in the amount of infectious disease which occurred in the County.

Attention may be directed to those sections of the report dealing with the death-rate from all causes, from the seven principal epidemic diseases, and with the rate of infantile mortality. As regards each of these a satisfactory decrease is noticeable, and especially is this the case in the rate of infant mortality. This subject is much more fully dealt

with this year, as owing to the fact that the Local Government Board have required medical officers of health to fill in an additional table setting out details of the deaths of children under one year of age, a much larger set of facts are available. These facts will be of undoubted use in guiding us as to the action which should be taken with a view to the further saving of life amongst infants.

In connection with this subject and as one having bearing on it, it is necessary to refer to that part of the report dealing with the administration of the Food and Drugs Acts by the County Council and the action which was taken as regards the admixture of preservatives to milk in view of the fact that so many infants are brought up on cows' milk.

I would also direct attention to the subject of isolation hospital accommodation. Two districts which previously had no provision, it will be found, have now made arrangements with a neighbouring district in the County for the isolation of cases in the hospital of the latter, whilst as regards the districts comprised within the area of the Staines Union, between whom and the County Council the need of hospital accommodation has been the subject of correspondence, it is satisfactory to state that the respective District Councils have had a conference and have decided that such accommodation is needed.

During the year I have, to an increasing extent, been consulted by the local medical officers of health in connection with the public health work of the County, and I have to acknowledge the readiness which they all display in affording me any information or assistance.

Many of the reports of the local medical officers were issued by the end of March, but several others did not reach me till some considerable time after this. Consequently it has not been possible to complete the report for the County at an earlier date than the present.

I have the honour to be,

SIR, MY LORDS AND GENTLEMEN,

Your obedient Servant,

C. W. F. YOUNG,

County Medical Officer of Health.

GUILDHALL,

WESTMINSTER,

July, 1906.

PART I.

THE COUNTY.

Administrative County of Middlesex.

REPORT on the Vital Statistics and Public Health Administration for 1905.

AREA. NUMBER OF DISTRICTS. INHABITED HOUSES.

The area which, for administrative purposes, is comprised in the County of Middlesex contains 148,700 acres. This area is situated on the north, north-west and west (north of the River Thames) of the County of London, and extends from the River Thames at Staines in the south-west to the River Lea at Enfield in the north-east. The other Counties to which Middlesex is adjacent in addition to London are Essex on the east, Hertfordshire on the north, Buckinghamshire on the west, and Surrey on the south and south-east. The River Thames forms the boundary between Middlesex and Surrey.

The area of the County of Middlesex at the date of the census in 1901 was divided up into urban and rural districts in the following proportions :—

Urban districts	..	..	88,105 acres.
Rural districts	..	..	60,595 „

Since that date, however, urban powers have been given to three parishes which then formed part of two rural districts, and the acreage comprised in the two classes of districts is now :—

Urban districts	..	..	91,791 acres.
Rural districts	..	..	48,909 „

The new districts were all created during the year 1904. They are (1) Feltham, formerly a parish in the rural district of Staines ; (2) Hayes ; and (3) Ruislip-Northwood, both formerly separate parishes in the rural district of Uxbridge.

The total number of separate sanitary districts is now 36, made up as follows :—

2 municipal boroughs,
30 urban districts,
4 rural districts.

The total number of civil parishes within the County is 60 in number, and the boundaries of each of the two municipal boroughs, and of all the urban districts except Brentford, Greenford, Heston and Isleworth, and Uxbridge are co-terminous with those of the respective civil parishes of the same name. As regards the exceptions mentioned :—

Brentford comprises the parishes of (1) Old Brentford.

(2) New Brentford.

Greenford „ „ (1) Greenford.

(2) Perivale.

(3) Twyford Abbey.

Heston and „ „ (1) Heston.

Isleworth (2) Isleworth.

Uxbridge „ „ (1) Hillingdon West.

(2) Uxbridge.

The four rural districts comprise 23 civil parishes, as follows:—

Hendon	..	..	..	5 parishes.
South Mimms..	..	..	..	1 parish.
Staines	..	..	..	10 parishes.
Uxbridge	..	..	..	7 parishes.

The following table shows the number of inhabited houses enumerated at each census, 1891 and 1901.

Inhabited Houses.

	1891.	1901.
County of Middlesex	95,088	135,431
Urban districts	84,667	125,204
Rural districts.. ..	10,421	10,227

Although the greater number of medical officers have been able to get the number of houses in occupation at the middle of the year 1904, for the purpose of estimating the population of their respective districts, some have not given this information in their reports, and it is not possible to give figures sufficiently approximate of the number of inhabited houses in 1905.

It will be obvious from the above figures that the increase which took place between 1891 and 1901 in the urban districts is in part to be accounted for by the creation of

new urban districts from the rural part of the County. The increase (about 4,000) due to this cause is, however, a relatively small proportion of the whole. The increase which took place during the decade shows the extraordinary rapidity with which the area of the County is being built over.

The reasons for this are obvious, but it may be well to place them on record here. They are, first, the proximity of the County to London; indeed, the contiguous parts of the different districts bordering on London are part of the metropolis as commonly understood; secondly, the improvements and additions which have been made in recent years and are still being made in the means of locomotion; and thirdly, the lessened cost of transit, which enables persons to live at a greater distance from the places in which they are engaged during working hours.

The subject of increase during the period June, 1904–June, 1905, is referred to in some of the district reports, and there is indication that in some parts the rate of increase has been somewhat less than in previous years; thus, in the case of Ealing, of late years the rate of increase due to the erection of new houses has been very marked, but it is reported that this has not been maintained during 1905. A statement to a similar effect is made as regards the district of Hanwell, which adjoins Ealing on the west.

In the Borough of Hornsey it appears that the increase has been much smaller during the twelve months than in previous years.

On the other hand, however, a steady increase of the population in nearly every quarter of the urban district of Hendon is reported.

In Southgate the largest increase of recent years has occurred, and this it is stated is due to the large number of newly-erected houses which have been occupied in Winchmore Hill and Palmer's Green; whilst as regards Tottenham, special stress is laid upon the rate of increase, and it is stated that whereas in 1904 plans were approved for 682 houses, in 1905 the number rose to 1,413 and about three-fourths were completed. Further, on the housing estate of the London County Council 141 premises were in occupation, although twelve months previous only 27 were occupied, and it is proposed to erect additional houses for over 3,000 persons within the next eighteen months or so.

POPULATION.

The following table shows the enumerated population of the Administrative County of Middlesex at the last census in 1901 and the previous census in 1891, and the estimated population June, 1905 :—

	Population (enumerated).				Population Estimated.
	1891.		1901.		Middle 1905.
	Persons.	Persons.	Males.	Females.	
Urban Districts ..	501,470	741,149	346,087	395,062	
Rural Districts ..	41,424	51,165	24,974	26,191	
The County..	542,894	792,314	371,061	421,253	974,067

The population of the County at the middle of the year 1905, based upon the estimates given in the annual reports of the local Medical Officers of Health, was 974,067. The middle of the year is chosen because in calculating rates on the births and deaths occurring throughout the twelve months it is necessary to use the mean population of the year.

The estimate relating to each district is based in most cases upon the number of inhabited houses in the district at the end of June, 1905, multiplied by the average number of persons per house which obtained at the date of the last census, subject to any local information possessed by the Local Medical Officer of Health of the district. In districts where unusual and variable expansion is taking place, as is the case in many parts of Middlesex, the results arrived at by this method are more likely to approximate to accuracy than estimates based upon the assumption that the rate of increase which occurred in the decennium between the census of 1891 and the census of 1901 is still being maintained.

The population of each district is shown in the following table :—

TABLE 1.—Population.

District.						Census 1901.	Estimated middle 1905.
URBAN.							
Acton	..	..	..	..	..	37,744	50,000
Brentford	..	..	..	..	..	15,171	15,762
Chiswick	..	..	..	..	..	29,809	33,160
Ealing (<i>Borough</i>)	..	..	..	..	..	33,031	46,000
Edmonton	{	District	..	..	..	44,911	54,606
		Institutions ¹	..	..	..	1,988	2,152
Enfield	..	..	..	..	..	42,738	51,315
Feltham	..	..	..	..	..	4,534	5,281
Finchley	..	..	..	..	..	22,126	28,716
Friern Barnet	{	District	..	..	..	8,816	10,470
		Asylum ²	..	..	..	2,750	2,426
Greenford	..	..	..	..	..	819	1,100
Hampton	..	..	..	..	..	6,813	7,500
Hampton Wick	..	..	..	..	..	2,606	2,606
Hanwell	..	..	..	..	..	10,438	19,428
Harrow	..	..	..	..	..	10,220	13,000
Hayes	..	..	..	..	..	2,594	3,000
Hendon	{	District	..	..	..	21,085	25,488
		Institutions ³	..	..	..	765	655
Heston and Isleworth	..	..	..	..	..	30,863	35,060
Hornsey (<i>Borough</i>)	..	..	..	..	..	72,056	85,213
Kingsbury	..	..	..	..	..	757	800
Ruislip-Northwood	..	..	..	..	..	3,566	4,515
Southall-Norwood	{	District	..	..	..	10,365	17,712
		Asylum ²	..	..	..	2,835	2,849
Southgate	..	..	..	..	..	14,993	22,400
Staines	..	..	..	..	..	6,688	6,885
Sunbury	..	..	..	..	..	4,544	4,750
Teddington	..	..	..	..	..	14,037	16,350
Tottenham	..	..	..	..	..	102,541	124,126
Twickenham	..	..	..	..	..	20,991	26,000
Uxbridge	..	..	..	..	..	8,585	9,165
Wealdstone	..	..	..	..	..	5,901	9,652
Wembley	..	..	..	..	..	4,519	5,895
Willesden	..	..	..	..	..	114,811	140,758
Wood Green	..	..	..	..	..	34,233	43,150
RURAL.							
Hendon	..	..	..	..	..	8,647	11,108
South Mimms	..	..	..	..	..	2,671	2,784
Staines	..	..	..	..	..	18,095	19,919
Uxbridge	..	..	..	..	..	11,058	12,311

¹ The Strand Union Workhouse and Edmonton Union Workhouse, in which sick persons from other districts are lodged.

² London County Lunatic Asylums (Colney Hatch and Hanwell).

³ Cleveland Street Sick Asylum (Strand district) and Hendon Union Workhouse, in which sick persons from outside districts are lodged.

The estimated population of the County given above is the sum total of the estimated populations of each of the districts. This population includes that of certain public institutions situated in the County, but which do not belong to it. In these, for the most part, are lodged infirm or sick persons, and as for the purpose of correct vital statistics it is necessary to exclude the deaths of such persons from the County total, it is also essential to exclude the populations of these institutions as far as possible. On the other hand the two lunatic asylums belonging to Middlesex are situated outside the County, one at Wandsworth, in the County of London, the other at Napsbury, in the County of Hertfordshire, and for the same reason the deaths and populations of these must be brought into the County figures. With the information available to me I am able to make the following correction, *for statistical purposes*, in the County population given above, viz., 974,067. Deduct 5,275 representing the average population of *outside* institutions, and add 1,996 the average population of the two Middlesex Asylums *situated without* the County area. This gives a total of 970,788, and it is this figure upon which the rates relating to the County in this report are based.

Public Institutions.—In last year's report I explained how these should be dealt with as regards the County as a whole and each of the districts respectively. It will be well to repeat what was then said, and I therefore give the following quotation :—“ The subject of population residing in and of births and deaths occurring in public institutions in the County, but which do not really belong either to the County or to the district in which the institutions are situated has been gone into in previous annual reports.

It may be of advantage, however, to state again the method of dealing with the population, births and deaths of such institutions. If the institution be of a kind that its population, or part of its population, cannot rightly be regarded as belonging to the residential population of the County or district, *e.g.*, workhouses, workhouse infirmaries, asylums or hospitals, which receive sick or infirm persons entirely from without the County, or entirely or partly from without the district in which it happens to be situated, then the population, births or deaths as the case may be, should be excluded either in whole or in part in order to obtain nett results for the district and the County. On the other hand, it is equally necessary to include as regards any district the number of, as well as the deaths and births amongst, its residents in institutions situated beyond the district.

It will probably be useful to set out here a list of institutions the population and the deaths in which need to be considered for the purpose of exclusion, inclusion or distribution in different districts of the County. In the following list I have set out the chief institutions which need to be dealt with in one or other of these ways, and have classified them according to the method in which they should be dealt with.

1. Institutions in the County the population and deaths in which should be *excluded* :—

Strand Union Workhouse	..	situated in Edmonton.
Colney Hatch Lunatic Asylum	„	Friern Barnet.
Hanwell Lunatic Asylum	..	„ Southall-Norwood.
Northern Fever Hospital, M.A.B.	„	Southgate.
North-Eastern Fever Hospital, M.A.B., except beds reserved for Tottenham	.. ..	„ Tottenham.

2. Institutions outside the County the deaths and average population in which of Middlesex residents need to be *included*, and distributed to the various districts to which they rightly belong :—

County Lunatic Asylum situated at Wandsworth.

County Lunatic Asylum „ Napsbury.

Barnet Union Workhouse „ in Barnet U.D.

To be distributed to { Friern Barnet.
Finchley.
South Mimms.

Kingston Union Workhouse, situated in Kingston U.D.

To be distributed to { Teddington.
Hampton.
Hampton Wick.

London Hospitals, situated in London.

Other outside hospitals, *e.g.*, Richmond.

3. Institutions within the County of Middlesex the deaths in which need to be distributed amongst the districts in which the persons previously resided :—

Brentford Union Workhouse, situated in Heston and Isleworth.

To be distributed amongst { Acton.
Brentford.
Chiswick.
Ealing.
Hanwell.
Greenford.
Twickenham.
Heston and Isleworth.

Hendon Union Workhouse, situated in Hendon.

To be distributed amongst { Hendon Urban.
Hendon Rural.
Kingsbury.
Harrow.
Wealdstone.
Wembley.

Staines Union Workhouse, situated in Staines Rural District.

To be distributed amongst { Staines Rural District.
Sunbury Urban District.
Staines Urban District.

Uxbridge Union Workhouse, situated in Uxbridge Rural District.

To be distributed amongst { Uxbridge Rural District.
Uxbridge Urban District.
Southall-Norwood District.

Tottenham Hospital, situated in Tottenham.

4. Institutions within the County some of the deaths in which are to be excluded from the County, and others distributed amongst districts in the County :—

Edmonton Union Workhouse, situated in Edmonton.

(a) Exclude those belonging to { Cheshunt U.D.
Waltham Cross U.D.

(b) Distribute remainder amongst { Edmonton.
Hornsey.
Wood Green.
Tottenham.
Southgate.
Enfield.

Enfield Workhouse.

The above list contains the larger institutions which need consideration, but it is probable as regards any one district that the Medical Officer of Health, with his local knowledge, may be able in special circumstances to apply the same methods to other institutions; but on general lines the list given appears to be complete.

COUNTY OF MIDDLESEX.

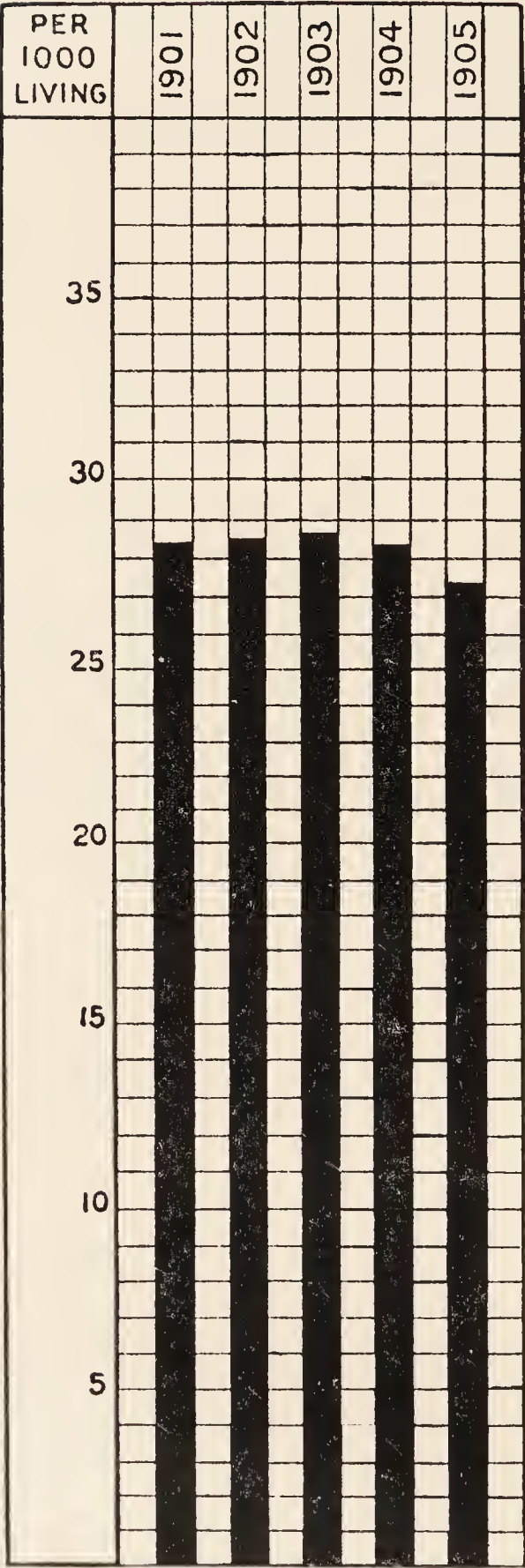


DIAGRAM 1,
SHOWING BIRTH-RATE PER 1,000 PERSONS LIVING.

It is of course not possible for medical officers to make corrections fully in the manner indicated unless arrangement is specially made with a view to getting the particulars needed as to deaths of residents occurring outside their districts, though there is no difficulty in discarding those deaths occurring and registered in a district but not rightly belonging to it. With a view to these corrections and to making the death rates as accurate as possible for each district the County Council has made arrangements. This matter will be again dealt with under the subject matter of Deaths.

BIRTHS.

From the figures given in the annual reports of the local medical officers of health, I find that the births of 26,501 children were registered in the Administrative County of Middlesex during 1905, which gives a birth-rate on the estimated population of 27·3 per 1,000 living. The birth-rates for each of the last four years for England and Wales generally, the Administrative Counties of London and of Middlesex respectively, have been as follows:—

Birth-rates.

Years.	The County.	England and Wales.*	London.*
1901	28·4	28·5	29·0
1902	28·5	28·6	28·5
1903	28·6	28·4	28·5
1904	28·3	27·9	27·9
1905	27·3	27·2	27·1

* From Registrar-General's Annual Summaries.

The decrease in the birth-rate, which has been so noticeable a feature in the country generally during recent years, is still continued in 1905, which is the lowest birth-rate on record. The County rate also shows a further decrease on those of the previous years. Not only is the rate lower than in 1904, but the actual number of births is but little greater, viz., 26,501 as compared with 26,392. In Table 2, which follows, the birth-rate for each district is set out, whilst in Diagram 1 the County rate is shown in graphic form for the last five years.

TABLE 2.—Births and Birth-rates in each District.

District.	Births.	Birth-rate per 1,000.	District.	Births.	Birth-rate per 1,000.
URBAN.			Kingsbury ..	18	22.5
Acton ..	1,527	30.5	Ruislip-Northwood ..	115	25.4
Brentford ..	530	33.6	Southall-Norwood ..	576	32.5
Chiswick ..	947	28.5	Southgate ..	463	20.6
Ealing (<i>Borough</i>) ..	1,072	23.3	Staines ..	157	22.8
Edmonton ..	1,947	35.6	Sunbury ..	138	29.0
Enfield ..	1,357	26.4	Teddington ..	381	23.3
Feltham ..	176	33.3	Tottenham ..	3,588	28.9
Finchley ..	743	25.9	Twickenham ..	713	27.4
Friern Barnet ..	291	27.7	Uxbridge ..	262	28.5
Greenford ..	19	17.2	Wealdstone ..	262	27.1
Hampton ..	231	30.8	Wembley ..	156	26.4
Hampton Wick ..	37	14.2	Willesden ..	4,201	29.8
Hanwell ..	510	26.2	Wood Green ..	1,158	26.8
Harrow ..	313	24.0	RURAL.		
Hayes ..	98	32.6	Hendon ..	203	18.2
Hendon ..	708	27.7	South Mimms ..	67	24.0
Heston and Isleworth ..	1,030	29.3	Staines ..	574	28.8
Hornsey ..	1,567	18.3	Uxbridge ..	366	29.7

DEATHS.

The total number of deaths of residents of Middlesex, fully corrected for deaths occurring and registered outside the County area during 1905 is 11,233. This total, as will be seen from the following table, is less than the actual number (also fully corrected) which occurred in 1904 and in 1902, although the population of the area under consideration has undoubtedly increased, and according to the estimates of those best able to judge, increased to a considerable extent. Whilst it is not wise to make inferences from the figures relating to a short period, in view of the above facts this decrease may be looked upon as a satisfactory indication of the health of the County.

Deaths and Death-rate. All Causes.

Year.	The County.		London.	England and Wales.
	Deaths.	Rate per 1,000 living.*	Rate per 1,000 living.	Rate per 1,000 living.
1901	10,562	14·0	18·7	16·9
1902	11,675	14·7	18·6	16·2
1903	10,645	12·6	16·4	15·4
1904	12,199	13·8	17·4	16·2
1905	11,233	12·2	15·8	15·2

The particulars given in the above table as regards England and Wales and London are obtained from the Annual Summaries of the Registrar-General.

In diagram 2 the death-rates for each of the last five years are set out in graphic form.

* Corrected for age and sex distribution (*see* Table 3).

COUNTY OF MIDDLESEX.

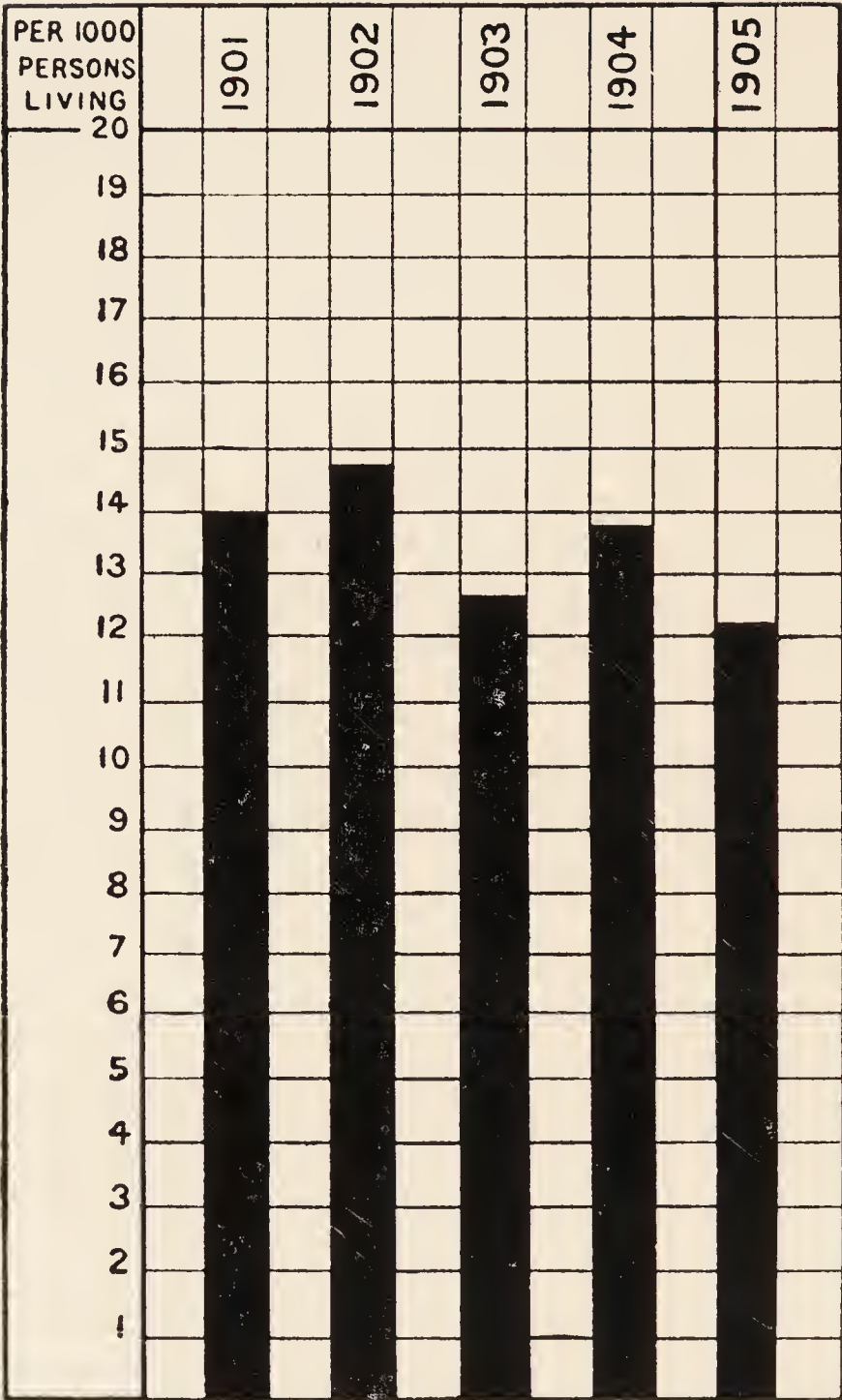


DIAGRAM 2,
SHOWING DEATH-RATE FROM ALL CAUSES
PER 1,000 PERSONS LIVING.

England and Wales, 1905 =
1.2 per 1,000.

It will be seen from the above table not only that there is a marked drop in the death-rate from all causes for the year 1905, but that this rate compares very favourably with the rates in London and England and Wales, both of which also show decrease on previous years.

The considerable reduction in the County rate raises the suspicion as to whether the population for 1905 is over-estimated. Whether this is so or not it is impossible to say, but two facts may be mentioned as showing that any such over-estimate cannot account entirely for decrease in the rate, namely (1) the fact that the actual number of deaths is less than during 1904, and (2) the fact that the infantile mortality, a rate which is based on actual figures and not on an estimate, shows a marked decline this year (*see later*).

In arriving at the above rates correction has been made—

- (1) By the exclusion of the deaths of non-residents which occurred and were registered in the County ;
- (2) By the inclusion of the deaths of residents of the County, which occurred and were registered elsewhere ; and
- (3) For the disturbing influence caused by the age and sex distribution of the population.

Figures are not given for any year previous to 1901, as particulars for corrections in the above manner are not available anterior to that date. The County Council, on

my recommendation decided, however, to obtain the necessary information for the years under review. As regards the year 1905, the information obtained related not only to the County as a whole but also to each district, and accordingly at the end of the year each medical officer of health was supplied with the particulars needed by him in order that he might correct the death returns in his report. In most of the reports of these officers reference is made in appreciation of the action of the County Council in supplying them with this information.

In Table 3, which follows, the corrected death-rates of each of the districts are set out, whilst full particulars, showing the deaths *registered* in each district and the corrections which have been made as regards (1) and (2) above, will be found in the Local Government Board Table (No. 1) at the end of this Report.

TABLE 3.—*Death-rates corrected for Age and Sex Distribution.*

—	Standard Death- rate.	Factor for Correction for Age and Sex dis- tribution.	Recorded Death- rate 1905.	Corrected Death- rate 1905.
<i>Urban.</i>				
Acton	17·45	1·04240	12·5	13·0
Brentford	17·51	1·03859	17·6	18·2
Chiswick	17·30	1·05174	12·9	13·5
Ealing (<i>Borough</i>) ..	17·03	1·06804	11·1	11·3
Edmonton	17·87	1·01785	13·3	13·5
Enfield	17·29	1·05198	11·1	11·6
Feltham ⁽¹⁾	—	—	13·4	—
Finchley	16·81	1·08227	9·9	10·7
Friern Barnet ..	16·89	1·07740	10·6	11·4
Greenford	19·78	·91932	9·0	8·2
Hampton	17·78	1·02300	11·8	12·0
Hampton Wick ..	17·71	1·02716	8·4	8·6
Hanwell	16·84	1·08040	8·2	8·8
Harrow	15·71	1·15834	9·3	10·7
Hayes ⁽¹⁾	—	—	12·6	—
Hendon	17·15	1·05063	11·7	12·4
Heston & Isleworth ..	18·02	1·00977	13·5	13·6
Hornsey (<i>Borough</i>) ..	15·97	1·13919	8·1	9·2
Kingsbury	16·91	1·07600	11·2	12·0
Ruislip-Northwood ⁽¹⁾	—	—	7·0	—
Southall-Norwood ..	17·31	1·05131	10·3	10·8
Southgate	17·40	1·04533	7·9	8·2
Staines	17·50	1·03948	11·0	11·4
Sunbury	18·09	1·00575	12·2	12·2
Teddington	17·37	1·04726	11·5	12·0
Tottenham	16·86	1·07931	12·5	13·4
Twickenham	17·64	1·03123	13·4	13·8
Uxbridge	18·83	·96628	17·3	16·7
Wealdstone	16·07	1·13203	8·9	10·0
Wembley	16·27	1·11846	9·3	10·4
Willesden	17·01	1·06979	12·4	13·1
Wood Green	16·57	1·09801	10·0	10·9
<i>Rural.</i>				
Hendon	16·97	1·07187	8·7	9·3
South Mimms	19·31	·94216	14·7	13·8
Staines	18·38	·99004	11·5	11·3
Uxbridge	18·65	·97576	13·0	12·6
The County	17·23	1·05600	11·6	12·2

(1) Figures for age and sex distribution not available, as this was not a separate district at last census.

It will be observed that all the factors for correction are above unity, except Greenford, Uxbridge (urban), South Mimms, Staines (rural) and Uxbridge (rural). In other words, with the exception of the districts mentioned, the age and sex constitution of the respective populations as compared with the age and sex distribution of the population of England and Wales is favourable in producing a low death-rate. The influence of this, however, is rectified in the rates shown in the last column, and these are comparable with the rate of England and Wales.

The highest death-rates, giving them in order of highest to lowest, are: Brentford 18·2, Uxbridge (urban) 16·7, Twickenham 13·8, Heston and Isleworth 13·6, Chiswick and Edmonton each 13·5, Tottenham 13·4, Willesden 13·1, Acton 13·0, Uxbridge (rural) 12·6, Hendon (urban) 12·4.

Amongst the smaller districts with populations under 5,500 in which the figures from year to year are more liable to show fluctuation, and the rates are consequently less reliable, South Mimms has a death-rate of 13·8 and Feltham of 13·4.

All the above are rates higher than that for the County as a whole. In Sunbury the rate is 12·2, the same as the County, a marked reduction on the death-rate of last year, whilst in the remaining districts the rate is lower than that of the County.

Causes of Death.—The various causes contributing to the deaths (fully corrected) belonging to the County are shown in Table 4.

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TABLE 4.—Deaths belonging to the Administrative County of Middlesex. Corrected for Institution Deaths, 1905.

CAUSE OF DEATH.	All Ages.	0—	1—	5—	15—	25—	65 and upwards.
Smallpox	—	—	—	—	—	—	—
Measles.. ..	176	43	122	10	—	1	—
Scarlet Fever	42	4	20	13	1	4	—
Whooping Cough	324	166	151	7	—	—	—
Diphtheria and Mem- branous Croup	134	2	77	51	2	2	—
Croup	10	—	7	3	—	—	—
Typhus.. ..	1	—	—	—	—	1	—
Enteric	51	—	2	6	14	29	—
Continued Fever	—	—	—	—	—	—	—
Influenza	144	7	5	1	6	75	50
Cholera.. ..	—	—	—	—	—	—	—
Plague	—	—	—	—	—	—	—
Diarrhœa	547	453	68	—	—	7	19
Enteritis	231	131	24	21	8	36	11
Puerperal Fever	45	—	—	—	6	39	—
Erysipelas	31	7	4	1	—	8	11
Other Septic Diseases..	52	12	3	3	5	22	7
Phthisis	858	7	19	28	136	632	36
Other Tuberculous Diseases	372	104	135	62	26	42	3
Cancer	788	1	3	—	2	458	324
Bronchitis	690	174	73	2	4	114	323
Pneumonia	1,004	233	220	32	39	321	159
Pleurisy	30	3	3	1	2	14	7
Other Respiratory Diseases	158	24	17	3	—	56	58
Alcoholism and Cirrhosis of Liver	170	—	—	—	1	143	26
Venereal Diseases	40	24	3	—	1	12	—
Premature Birth	508	508	—	—	—	—	—
Childbirth	40	—	—	—	4	36	—
Heart Diseases.. ..	1,501	9	7	32	50	695	708
Accident	305	65	45	24	18	117	36
Suicide	100	—	—	—	5	92	3
All other causes	2,881	862	174	93	105	713	934
Totals	11,233	2,839	1,182	393	435	3,669	2,715

Dr. William Butler, the Medical Officer of Health of Willesden, has been able, in his report, to give an interesting account of the death-rates of different classes of the population residing in Willesden. For this purpose he has classified the population of the district into three groups, basing the classification upon the social circumstances as typified by the class of house in which the inhabitants live.

I cannot do better than give the results he arrives at in his own words—

“The basis of classification was as follows :—

Class I.—Streets in which the houses generally were occupied separately by one family, and where the rental exceeded £50 a year. Broadly it may be described as the better residential class.

Class II.—Streets in which the houses generally were of the better tenement class, consisting of houses occupied mostly by not more than two families, and where the rentals paid were between £30 and £50 a year.

Class III.—Streets in which the prevailing type of house consisted of one, two, three or four roomed tenements, and where the rental was less than £30 a year.

Of course, there has been an overflow in each class from the others, for though streets are generally uniform as regards any one of these classes of houses there are necessarily occasional exceptions. Nevertheless, each class is representative of its kind, and I am of opinion that the statistical results may be taken as typical of their class.

These results are set out in the following table :—

No. of Houses.	Popula- tion.	NOTIFICATIONS OF INFECTIOUS DISEASES.					BIRTHS.		DEATHS.										
		Scarlet Fever.	Diphtheria and Croup.	Enteric Fever.	Erysipelas.	Puerperal Fever.	Male.	Female.	At all Ages.	Infant Deaths.	Whooping Cough.	Measles.	Diarrhoea.	Scarlet Fever.	Diphtheria and Croup.	All other Fever.	Cancer.	Phthisis.	Marasmus.
Class I. { 2,807	15,319	23	23	6	3	1	96	91	121	14	1	—	3	—	2	2	11	5	1
	Rates	1.5	1.5	0.4	0.2	0.06	12.2		7.8	74	0.06	—	0.2	—	0.1	0.1	0.711	0.326	0.1
Class II. { 10,091	60,416	174	88	13	37	7	823	795	641	169	24	4	27	3	5	2	52	58	14
	Rates	2.9	1.4	0.2	0.6	0.1	26.7		10.6	104	0.4	0.06	0.4	0.05	0.08	0.03	0.860	0.960	0.2
Class III. { 7,661	63,086	202	162	22	46	5	1,184 | 1,212		969	308	43	45	78	2	8	7	48	86	39
	Rates	3.2	2.6	0.4	0.7	0.08	38.0		15.3	128	0.6	0.7	1.2	0.03	.1	.1	0.760	1.363	0.6
20,559	138,821	399	273.	41	86	13	2,103	2,098	1,731	491	68	49	108	5	15	11	111	149	54
		2.9	2.0	0.3	0.6	0.09	4,201		*13	3.5	0.5	0.3	0.8	0.03	0.10	0.07	0.799	1.080	0.4
							30.2		1,744										
									12.4										

* Persons dying in Infirmary—Address unknown.

Class I., which constitutes about 11 per cent. of the population of Willesden, in round figures averages about 5 persons per house. Class II., constituting about 43 per cent., averages about 6 persons per house, while Class III., constituted about 45 per cent., averages about 8 persons per house.

The general features of these three classes or social grades of the population of Willesden, as revealed in the statistical analysis, are that the birth-rates, the general death-rates, the infantile mortality-rates, the death-rates from the seven principal zymotic diseases and from phthisis, and the incidence rates of the notifiable infectious diseases are all inversely as the social grade. The better the class socially, the lower are the rates.

Class I. has the phenomenally low birth-rate of 12·2 per 1,000; Class II., with a birth-rate of 26·7 per 1,000, is well below the average birth-rate for England and Wales, while Class III., with a birth-rate of 38 per 1,000, is greatly in excess of that for the country generally.

There is probably no fact in the domain of vital statistics so significant, so momentous as this. The class which achieves what, after all, is but a modest standard of comfort and prosperity, but for the most part achieves it by its industry and intelligence, which truly, if its death-rates mean anything, lives healthily and well, is contributing insignificantly to the increase of our population.

The lower down in the social strata we go the greater are the contributions to our population. Put aside such suppositions as that the higher social position achieved is the attainment of inherent worth, and we are still left with the fact that among the class where social opportunity is greatest, the population is least recruited, that among the class where the chance of miscarriage prevails and human failure is the rule, there is such excessive fertility that the greater part of our population is increasingly born to prospective ineffectiveness.

The progressive increase in the death-rates from Class I. to Class III. is also a noteworthy feature. The death-rate at all ages in Class I. is the extremely low one of 7·8 per 1,000, in

Class II. it rises to 10·6, and in Class III. to 15·3 per 1,000. The infantile mortality-rate observes the same rule. In Class I. it is 74, in Class II. it is 104, and in Class III. 128 per 1,000 births. Similarly with the death-rates from the seven principal zymotic diseases: in Class I. this rate is ·52 per 1,000, in Class II. 1·07, and in Class III. 2·9 per 1,000 persons living in each class.

As might be expected the Phthisical death-rate similarly conforms: In Class I. it is 326 per 1,000,000, in Class II. 960 per 1,000,000, and in Class III. 1,363 per 1,000,000.

The rates of incidence of the notifiable infectious diseases observe the same law of inverse proportion to social grade. In Class I. the rate is 3·6 per 1,000 persons, in Class II. 5·2 per 1,000, in Class III. 6·9 per 1,000.

There is one rate which is the exception to this rule. It is that of fatality from diphtheria. The fatality-rate from diphtheria is the number of persons dying from diphtheria expressed as a percentage of those attacked.

The fatality-rate in Class I. is 8·7 per cent., in Class II. 5·6 per cent., and in Class III. 4·9 per cent. This inversion of the rule, otherwise observable, is curious and is, I believe, to be accounted for by the fact that in Class III. all the cases of diphtheria are promptly removed to hospital, that in Class II. the bulk of them are, while in Class I. nearly all the cases are treated at home.

The private house, even of the best class, does not afford the advantages of treatment and chances of recovery that are provided in an institution, built and equipped and staffed for the purpose, and the better class of residents in this respect are at a disadvantage when compared with their poorer neighbours.

It is unnecessary, at this time, to do more than place on record the results of this investigation into class vital statistics. They serve to show how the problems of hygiene are inseparable from economic, social, and other considerations, how that births

and diseases and deaths are in no small measure related to questions of earning capacity and of opportunity for its exercise."

Diagrams 3 and 7 represent graphically the death-rates from some of the chief diseases.

INFANTILE MORTALITY.

This death-rate is based upon the number of deaths of children under one year of age, and is expressed as a proportion of such deaths to the births registered during the same period. As each birth has to be registered, this rate is much more precise than other death-rates which are based upon estimates of population, inasmuch as we are dealing with actual figures.

The total number of deaths belonging to the County of Middlesex (corrected) for 1905 is 2839. This, again, is a decrease on the actual number for 1904, and the rate of infantile mortality is markedly less than that of previous years, namely 107·1 per 1,000 births.

Infantile Mortality per 1,000 Births.

Year.	Middlesex.			London.*	England and Wales.*
	Births.	Deaths.	Rates per 1,000 Births	Rate per 1,000 Births.	Rate per 1000 Births.
1901	22,500	3,006	133	149	151
1902	23,766	3,063	129	141	133
1903	25,342	2,967	117	131	132
1904	26,392	3,602	136	146	146
1905	26,501	2,839	107	131	128

* From Registrar-General's Annual Summary.

COUNTY OF MIDDLESEX.

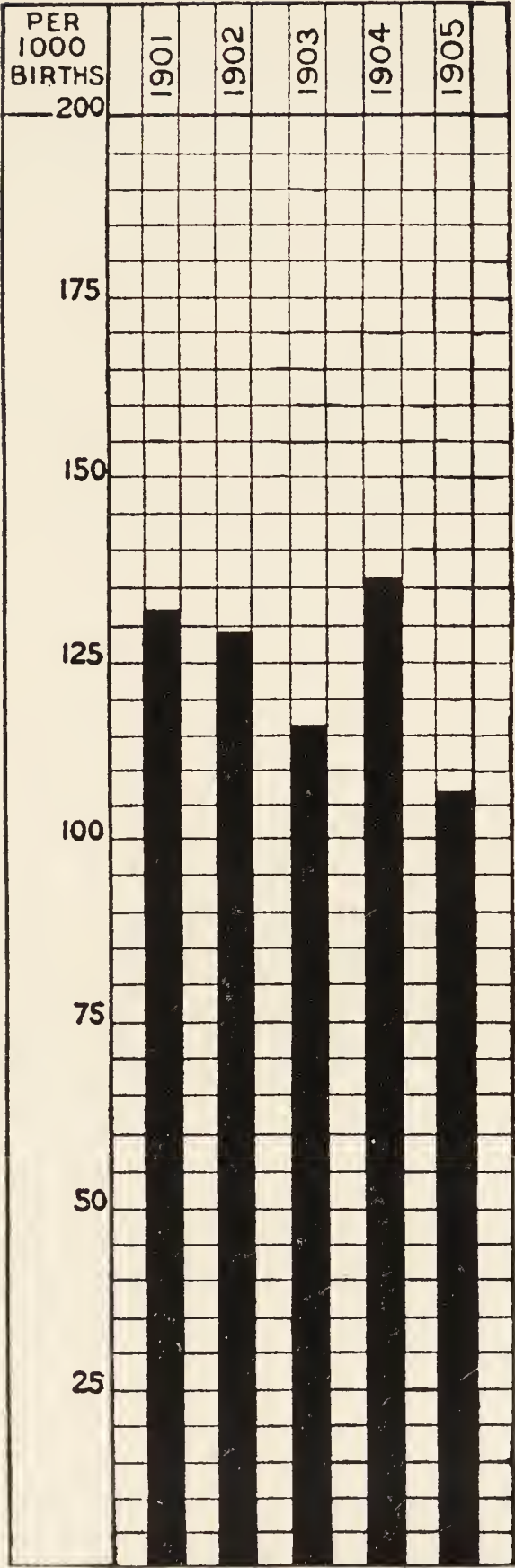


DIAGRAM 4,
SHOWING INFANTILE MORTALITY,
or proportion of Deaths under 1 year, per 1,000 Births.
England and Wales, 1905 =
128 per 1,000 Births.

The subject of infantile mortality, or the deaths of children before they attain one year of age, has during the last few years engaged the attention of sanitary authorities and their medical officers of health in a greater degree than previously. It has been noted that although during the last quarter of a century a considerable reduction has taken place in the general death-rate side by side with the increased activity in public health administration which has been displayed during this period, there has not been a corresponding reduction in the deaths of infants.

It is perhaps too early to say that this increased attention is the cause of the reduction noticeable, but there is little doubt that the action which is being taken by some of the authorities is on the right lines, and may already in part account for decrease in the number of infant deaths. The factors which have influence in causing the deaths of infants are complex and not yet fully understood, and it is probable that meteorological conditions have influence in any one year in producing a higher or lower number of infant deaths, but there is no doubt that a large number of them are partly due to ignorance or neglect in the feeding, and in what should be done in the case of ailments regarded as trivial until it is too late to do any good by treatment.

The attempts which have been made to cope with infant mortality may be said for the most part to have been directed to remedying these causes, and in the case of many of the districts of Middlesex action has been taken on these lines. Thus some districts have appreciated the

advantage of employing the services of female sanitary inspectors who visit the poorer houses in which births have recently occurred and afford instruction and assistance to mothers, as to the proper way of feeding and bringing up their infants where for one or other reason they cannot be suckled, and as to what dangers should be avoided. In other districts where no female inspector exists, owing to the fact that none has yet been appointed or that the district is not sufficiently large to enable it to afford one, printed instructions have been drawn up and are distributed through the medium of the local registrar of births and deaths or by the help of female district visitors who are supported by voluntary aid in the parish.

In order, however, that any action at all may be taken it is necessary that the sanitary authority should obtain information, not merely as to the number of births which have occurred, but also the addresses at which they have taken place, from the local registrar of births and deaths. It is true that inasmuch as a birth may be registered within any period up to six weeks after its occurrence it is at times found that by the time the local authority get the information some of the children may already have died, but notwithstanding this, useful action can be taken as regards those who do survive.

As regards this difficulty it is of interest to point out that the Corporation of Huddersfield is seeking powers in a Bill before Parliament, Session 1906, providing for the notification of each birth to the local authority within forty-eight hours of its occurrence in addition to the ordinary registration, with the object of enabling advice and assistance to be given to poor

mothers in the rearing of their children, and so to reduce infantile mortality. The Police and Sanitary Committee of the House of Commons by which the clauses of the Bill were considered, approved the clause to operate for a period of five years.

The penalty for failure to notify is 20s.*

For the year 1905 the information as to the deaths of children under one year of age is much more complete than hitherto, as with a view to throwing more light on the subject the Local Government Board issued a new table requiring medical officers of health to set out a large number of additional details. From the particulars given, the following table as to the deaths of 2,811 infants in the County of Middlesex has been compiled:—

* [See report in *British Medical Journal*, March 31st, 1906, page 762.]

TABLE 5.

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
Common Infectious Diseases.	Smallpox ..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1
	Chicken-pox..	..	..	..	2	..	1	1	..	2	2	3	4	6	10	9	41
	Measles ..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	3
	Scarlet Fever	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	2
	Diphtheria: Croup..	..	..	..	..	16	9	16	8	9	13	17	19	17	18	17	160
Diarrhoeal Diseases.	Whooping Cough ..	..	..	..	1	36	31	37	40	31	30	22	26	14	10	24	315
	Diarrhoea, all forms..	..	1	8	5	..	27	23	26	22	11	14	17	10	10	7	198
	Enteritis (<i>not Tuberculous</i>) ..	..	2	1	2	26	..	..	..	..	..	..	..	..	..	..	..
	Gastritis, Gastro-intestinal Catarrh	..	2	5	3	13	13	6	9	9	8	9	4	1	2	4	88
	Premature Birth ..	347	40	31	16	23	8	5	..	..	1	..	..	..	1	..	472
Wasting Diseases.	Congenital Defects ..	45	12	7	3	5	4	2	3	5	5	2	1	..	2	..	96
	Injury at Birth ..	24	1	..	..	..	..	..	2	1	1	..	..	..	..	..	25
	Want of Breast-milk	..	..	..	..	2	1	1	..	..	..	..	..	..	..	..	8
	Atrophy, Debility, Marasmus..	71	20	22	17	61	43	22	16	17	6	4	8	7	5	3	322

Tuber- culous Diseases.	{	Tuberculous Mening- itis ..	..	..	1	1	2	..	..	3	3	7	2	5	4	2	5	35	
		Tuberculous Periton- itis: Tabes Mesen- terica ..	..	..	..	—	8	3	5	1	1	3	1	1	1	3	4	2	32
		Other Tuberculous Diseases ..	..	..	..	—	4	2	3	1	1	8	2	5	3	3	2	3	36
		Erysipelas ..	..	1	1	3	2	..	2	..	..	..	..	..	..	..	..	1	6
		Syphilis ..	2	2	1	5	7	..	2	..	2	..	1	1	2	..	..	..	18
		Rickets ..	..	..	..	—	..	3	..	3	2	..	1	1	2	1	1	2	13
		Meningitis (<i>not Tuberculous</i>) ..	..	1	..	1	2	..	3	..	8	..	6	1	9	11	4	2	57
		Convulsions ..	46	23	9	6	18	22	15	11	5	10	5	10	9	7	5	..	191	
		Bronchitis ..	3	4	6	9	22	25	19	14	12	11	15	14	6	14	6	9	183	
		Laryngitis ..	..	..	..	—	..	2	..	..	..	..	1	..	1	..	..	1	5
		Pneumonia ..	3	5	3	14	20	23	12	15	15	17	21	17	14	20	12	26	209	
		Suffocation, overlaying ..	5	1	1	9	9	4	4	5	3	..	..	..	1	..	1	1	37
		Other Causes ..	62	30	15	13	120	23	14	10	15	11	16	11	18	9	8	5	258	
		Total ..		608	147	110	84	949	298	241	188	186	153	151	131	160	127	104	123	2,811

The figures in the foregoing table show—

- (1) That about one-third of all deaths under one year occurred before the end of the first month of life.
- (2) That the greatest number of deaths from any single cause is due to prematurity of birth, and that whilst this is the chief cause of deaths under one month (about one-half) it is also prominent in its influence at the end of one year (about one-sixth).
- (3) That atrophy and diarrhoea are the two next chief causes of infant mortality, their influence being most felt between the first and fifth months of life. Taken together, these two causes account for about one-fourth of all deaths during the first year of life.
- (4) That a considerable number of deaths took place from whooping cough, bronchitis and pneumonia (about one-fifth).

These figures, whilst not minimising the importance of the need of care in the feeding and rearing of children and of avoiding dangers to which they are specially susceptible, indicate that the matter of infant mortality is one of much greater scope. The fact that so large a proportion die owing to premature birth directs attention to the need of greater care in the habits of the mother during the period of pregnancy.

In the following table the rates of infant mortality in each of the separate districts is given:—

TABLE 6.—*Infantile Mortality for each District.*

—	Death- rate per 1,000 Births.	Births.	Deaths.	—	Death- rate per 1,000 Births.	Births.	Deaths.
URBAN.							
Acton ..	106	1,527	162	Kingsbury ..	111	18	2
Brentford ..	115	530	61	Ruislip-Northwood ..	69	115	8
Chiswick ..	107	947	102	Southall-Norwood ..	100	576	58
Ealing (<i>Borough</i>) ..	101	1,072	109	Southgate ..	77	463	36
Edmonton ..	128	1,947	250	Staines ..	82	157	13
Enfield ..	117	1,357	117	Sunbury ..	123	138	17
Feltham ..	147	176	26	Teddington ..	110	381	42
Finchley ..	91	743	68	Tottenham ..	116	3,588	419
Friern Barnet ..	82	291	24	Twickenham ..	127	713	91
Greenford ..	52	19	1	Uxbridge ..	110	262	29
Hampton ..	86	231	20	Wealdstone ..	87	262	23
Hampton Wick ..	108	37	4	Wembley ..	134	156	21
Hanwell ..	103	510	53	Willesden..	110	4,201	463
Harrow ..	57	313	18	Wood Green ..	84	1,158	96
Hayes ..	61	98	6	RURAL.			
Hendon ..	115	708	82	Hendon ..	44	203	9
Heston and Isleworth ..	127	1,030	126	South Mimms ..	149	67	10
Hornsey (<i>Borough</i>) ..	67	1,567	106	Staines ..	102	574	59
				Uxbridge ..	76	366	28

The highest rates it will be seen are recorded in the districts of South Mimms, Feltham, Wembley, Edmonton, Heston and Isleworth, Twickenham and Sunbury. In the first three and Sunbury the total population is small, and consequently the number of births and deaths are liable from year to year to fluctuation more marked in degree than in large populations, and this may have some influence in the results recorded, but it is necessary to point out that both in Sunbury and Feltham some of the highest rates in the County were also recorded for 1904. In the case of Staines rural district the rate in 1904 was 164 per 1,000 births, whilst for 1905 there is a well-marked and satisfactory decrease to 102 per 1,000 births.

During 1904, in a large number of districts, the infantile mortality ranged from 140 per 1,000 births to 200 per 1,000 and over, whilst this year, with three exceptions, viz., Wembley, Feltham, and South Mimms, all the rates are below 130 per 1,000 births.

PRINCIPAL EPIDEMIC DISEASES.

The diseases which are taken by the Registrar-General for the purpose of obtaining this death-rate are—*smallpox, measles, scarlet fever, diphtheria, whooping cough, "fever" (typhus, typhoid and continued), and epidemic diarrhœa*. This is usually known as the zymotic death-rate.

The death-rates per 1,000 persons living from these seven epidemic diseases for the last four years in the County as a whole (corrected) are set out in the following table together with the corresponding rates in England and Wales and the adjoining County of London :—

Principal Epidemic Diseases.

Rates per 1,000 living.

—	The County.	London.*	England & Wales.*
1901	1·87	2·25	2·05
1902	1·96	2·23	1·64
1903	1·47	1·77	1·46
1904	2·00	2·18	1·94
1905	1·31	1·71	1·52

* From Registrar-General's Annual Summaries.

The following table shows the death-rates from the seven chief epidemic diseases for 1905 in each of the districts. The rates are per 1,000 persons living.

Urban.

Acton ..	..	1·3	Kingsbury ..	—
Brentford ..	..	2·1	Ruislip-Northwood	0 4
Chiswick ..	..	1·7	Southall-Norwood	1·5
Ealing ..	..	1·0	Southgate ..	0·7
Edmonton ..	..	2·3	Staines ..	.. 0·7
Enfield ..	..	1·8	Sunbury ..	.. 0·8
Feltham ..	..	1·5	Teddington ..	0·8
Finchley ..	..	0·6	Tottenham ..	1·0
Friern-Barnet ..	..	1·0	Twickenham ..	0·7
Greenford ..	..	—	Uxbridge ..	.. 1·6
Hampton ..	..	2·0	Wealdstone ..	.. 1·4
Hampton Wick	..	0·7	Wembley ..	.. 1·1
Hanwell ..	..	0·5	Willesden ..	.. 1·7
Harrow ..	..	0·9	Wood Green ..	.. 1·0
Hayes ..	..	—	

Rural.

Hendon ..	..	1·8	Hendon ..	.. 0·2
Heston and			South Mimms ..	.. 1·1
Isleworth	..	1·9	Staines ..	.. 1·2
Hornsey ..	..	0·4	Uxbridge ..	.. 1·2

NOTIFIABLE INFECTIOUS DISEASE.

The diseases which are compulsorily notifiable under the Infectious Disease (Notification) Acts, 1889 and 1899, are :—

Smallpox,	The fevers known as—
Cholera,	Typhus,
Diphtheria,	Typhoid or Enteric,
Membranous Croup,	Relapsing,
Erysipelas,	Continued, and
Scarlet Fever, or	Puerperal.
Scarlatina.	

The above list may be added to by a local Sanitary Authority by a resolution passed at a meeting of such authority of which 14 clear days' notice has been given. Acting under this power the Hampton Urban District Council made measles notifiable some years ago, and during the year 1905 the Urban District Council of Feltham and the Rural District Council of Staines made cerebro-spinal meningitis ("spotted fever") notifiable for a period of five years. No cases of the last-named disease have, so far, been reported.

At the commencement of 1905, with the assistance of the medical officers of health of the several districts, a system for a weekly return of the total notifications made in the County was instituted. Each medical officer sends me at the end of the week the total number of cases from each disease notified to him. These are then compiled, and the result, showing the returns from each district and

COUNTY OF MIDDLESEX.

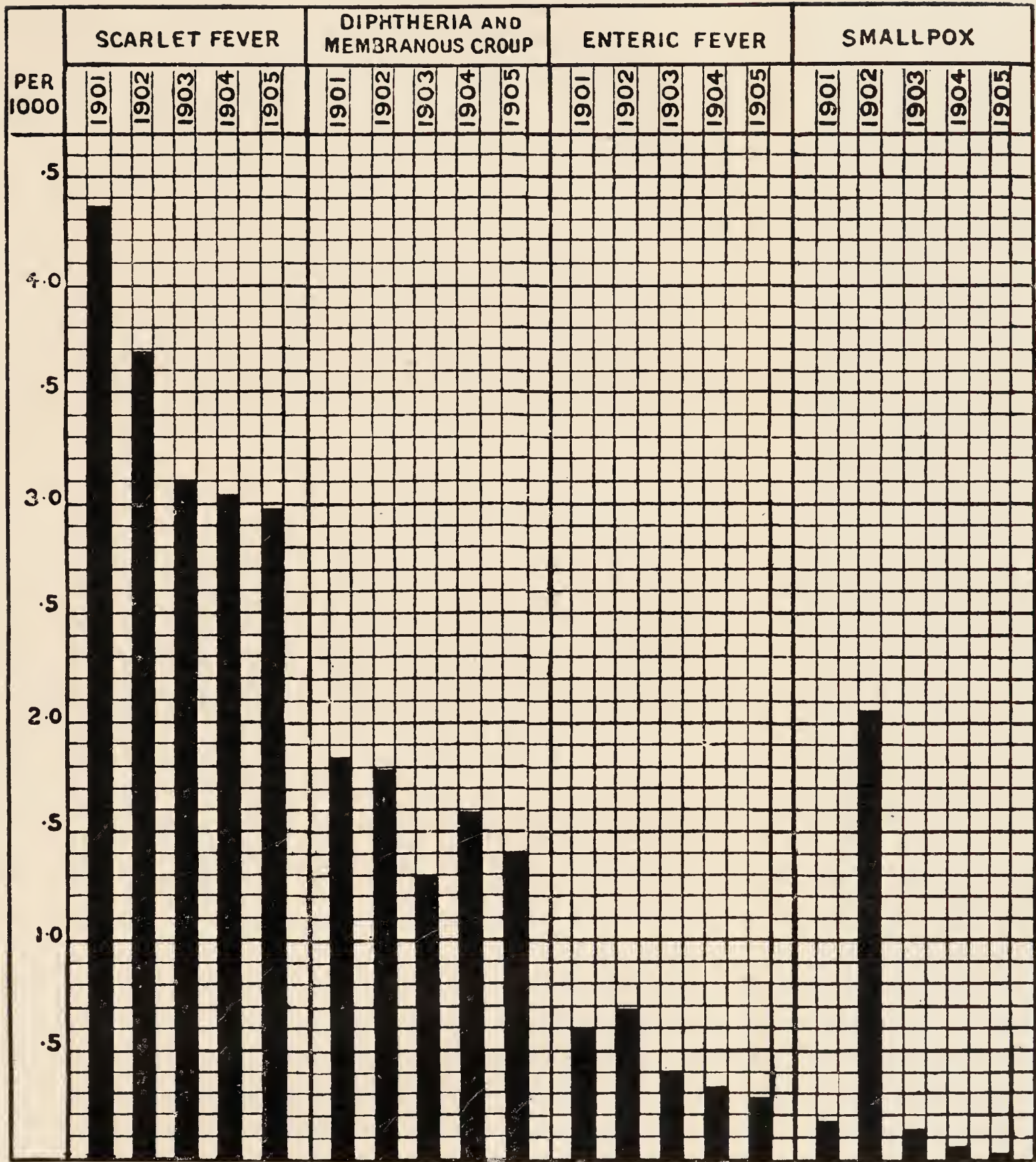


DIAGRAM 5, SHOWING
CASE RATE PER 1,000 PERSONS LIVING
OF CERTAIN NOTIFIED DISEASES.

the total for the County, is distributed by the middle of the week to each medical officer, who is thus able to see the course which epidemic disease is taking in the districts immediately adjoining his own, and will thereby have his attention directed to undue presence of any one complaint in one part of the County which would not be indicated by the returns of his own district.

As the result of the information thus obtained week by week, I am enabled to give diagrams showing the curve of the more important infectious diseases week by week. These will be found at the end of the first part of this report, page 180.

During 1905 the total number of cases of infectious disease notified, exclusive of measles, was 5,287. The notifications of each disease were:—

Smallpox	..	11	Continued Fever..	2
Scarlet Fever	..	2,901	Typhus	0
Diphtheria	..	1,336	Relapsing Fever ..	0
Membranous Croup		25	Puerperal Fever ..	53
Enteric Fever	..	281	Erysipelas ..	678

SMALLPOX.

The number of cases of this disease notified in the County during 1905 was 11. These were notified in the following districts:—Acton 1 case; Enfield 1 case; Hampton 1 case; Hornsey 1 case; Ruislip-Northwood 1 case; Uxbridge (rural) 4 cases; and Staines (rural) 2 cases.

In the following table are set out the figures for recent years, together with the case rate, case-mortality rate and death-rate :—

Smallpox.

Year.	Cases.	Deaths.	Case rate per 1,000 living.	Case mortality per cent.	Death-rate per 10,000 living.
1901	157	18	0·17	13·1	0·22
1902	1,711	283	2·05	16·5	3·39
1903	115	4	0·13	3·4	0·04
1904	59	1	0·06	1·7	0·01
1905	11	—	0·01	0·0	0·00

The particulars available as to the cases which occurred are to the following effect :—

Ruislip-Northwood.—A labourer, of no fixed address, who had walked from Gloucester *via* Oxford, went to the police station at Ruislip and complained that he was too ill to proceed any further. He was isolated in an empty stable until the arrival of the Police Surgeon, who then notified the case and he was removed to the Smallpox hospital of the Uxbridge Joint Hospital Board at Yeading. The man was supposed to have slept the previous night in an outshed, and this was visited and the rags, sacking and hay found there were burnt. No extension occurred. The medical officers of health of the districts through which he had passed were communicated with.

Uxbridge (rural).—The four cases referred to above were all notified from the workhouse at Hillingdon (east). Two of the patients had been inmates of the workhouse for some time previous to their attack, and one was a tramp who was already infected at the time of his admission.

Two additional cases to those mentioned above were also notified, one in Uxbridge (urban) and one in Uxbridge (rural) respectively, but both these turned out not to be smallpox.

Staines (rural).—As regards these cases one appears to have been introduced from the north of England, and the other to have been connected with an outbreak on a ship arriving at Southampton. Both cases were modified by primary vaccination.

The cases were notified as follows:—

1	case in Hampton during week ended January 21st.
1	„ Hornsey „ February 11th.
1	„ Enfield „ March 18th.
1	„ Staines (rural) „ March 25th.
1	„ Acton „ April 15th.
1	„ Staines (rural) „ April 15th.
1	„ Uxbridge (rural) „ May 20th.
1	„ Ruislip-Northwood „ June 10th.
1	„ Uxbridge (rural) „ July 8th.
1	„ „ „ July 15th.
1	„ „ „ July 22nd.

VACCINATION.

The following table shows the returns as to vaccination in the *registration* County of Middlesex and in each of the separate Unions. The returns for England and Wales are also given. The figures have been obtained from the report of the Medical Officer of the Local Government Board and relate to the year 1902, the latest date for which figures are available.

Vaccination.—Percentages of Births Registered, 1902.

Unions.	Success- fully vacci- nated.	Exempted by “Conscientious Objection” Certificates.	Not finally accounted for.	Un- vaccinated.
Brentford ..	76·9	0·5	12·3	12·8
Edmonton ..	67·9	1·2	22·0	23·2
Hendon ..	86·0	3·5	3·5	7·0
Staines ..	85·1	0·3	6·6	6·9
Uxbridge ..	84·6	0·9	5·7	6·6
Willesden ..	62·7	1·5	18·7	20·2
The Registra- tion County	73·1	1·2	16·5	17·7
England and Wales ..	74·8	3·6	11·6	15·2

For the year 1903 the total number of certificates received of successful primary vaccination at all ages was as follows:—

Brentford Union	..	..	4,442
Edmonton	„	..	7,880
Hendon	„	..	1,352
Staines	„	..	933
Uxbridge	„	..	1,088
Willesden	„	..	3,136
The Registration County	..		18,835

SCARLET FEVER.

The number of notifications of cases of scarlet fever in the County during 1905 was 2,901, which is equal to a case rate of 2·98 per 1,000 persons living.

Cases were notified in all districts except Wembley.

The corrected number of deaths was 42, or a case-mortality rate of 1·4 per cent.

In the following table are given the case and death rates per 1,000 persons living, and the case mortality, or percentage of deaths to cases, for each of the last four years:—

Scarlet Fever.

Year.	Cases.	Deaths (corrected)	Case rate.	Death- rate.	Case mortality per cent.
			Per 1,000 living.		
1901	3,461	61	4·37	0·076	1·76
1902	3,073	64	3·69	0·076	2·07
1903	2,753	59	3·10	0·066	2·14
1904	2,827	44	3·03	0·047	1·55
1905	2,901	42	2·98	0·043	1·44

The distribution of the cases of scarlet fever during 1905 at various age groups was as follows. The corrected deaths and the case mortality at each age group are also given:—

*Scarlet Fever Age Distribution.**

Age group.	Cases.	Corrected deaths.	Case mortality per cent.
0-1	57	4	7·0
1-5	827	20	2·4
5-15	1,675	13	0·7
15-25	234	1	0·4
25-65	108	4	3·6
65 and up	—	—	—

* In the reports relating to Enfield and Uxbridge (rural), the cases have not been given in age groups, and it has been necessary to distribute them in each group in the same proportion as the rest of the County.

The cases notified, together with the deaths *recorded* in the report relating to each district, are set out in the following table:—

TABLE 7.—Scarlet Fever. Age Distribution of Cases and Deaths, 1905.

	CASES NOTIFIED.						DEATHS RECORDED.							
	All ages.	Un- der 1.	1-5.	5- 15.	15- 25.	25- 65.	65 and up.	Un- der 1.	1-5.	5- 15.	15- 25.	25- 65.	65 and up.	All ages.
URBAN.														
Acton ..	137	2	37	81	11	6	—	1	—	1	—	—	—	2
Brentford ..	67	1	27	35	3	1	—	—	1	3	—	—	—	4
Chiswick ..	84	1	27	45	6	5	—	1	2	—	—	—	—	3
Ealing (<i>Borough</i>) ..	158	1	30	97	21	9	—	1	1	—	—	—	—	2
Edmonton ..	259	2	71	165	15	6	—	—	2	3	—	1	—	6
Enfield* ..	194	—	—	10	—	—	—	—	4	1	—	2	—	7
Feltham ..	10	—	—	17	10	8	—	—	—	—	—	—	—	—
Finchley ..	85	—	8	50	2	1	—	—	—	—	—	—	—	—
Friern Barnet ..	26	—	—	15	—	—	—	—	—	—	—	—	—	—
Greenford ..	1	—	—	1	—	—	—	—	—	—	—	—	—	—
Hampton ..	37	—	12	20	4	1	—	—	—	—	—	—	—	—
Hampton Wick ..	3	—	2	1	—	—	—	—	—	—	—	—	—	—
Hanwell ..	105	—	37	62	2	4	—	—	—	—	—	—	—	—
Harrow ..	17	—	4	10	2	1	—	—	—	—	—	—	—	—
Hayes ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hendon ..	90	2	20	59	7	2	—	—	3	—	—	—	—	3
Heston and Isleworth ..	85	1	23	51	8	2	—	—	—	—	—	—	—	—
Hornsey (<i>Borough</i>) ..	261	4	62	147	32	16	—	—	1	1	1	—	—	3

Kingsbury	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1</
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* In the reports relating to Enfield and Uxbridge (rural), the cases have not been given in age groups.

Cases, it will be seen, were notified in all districts except Hayes and Kingsbury. As compared with 1904, decrease took place in Finchley, Southall-Norwood, Southgate, Sunbury, Twickenham, and Staines (rural) districts. In the case of Sunbury and Staines (rural) scarlet fever was very prevalent during the previous year.

On the other hand, increase in the number of cases as compared with 1904 took place in Hanwell, Hornsey, Staines (urban), Teddington, Wembley and Uxbridge (rural), and in the case of Hanwell and Wembley this was specially marked. In Ealing the disease was prevalent and many of the cases were associated with a private school. In the report on Edmonton Dr. McFadden states that the experience of the previous year was repeated as regards infection caused by children who have had the disease in so mild and slight a form that they have not come under medical attention, the mother or other guardian merely regarding it as a trivial indisposition. Several instances of spread owing to this are quoted. In Hampton the medical officer reports it was prevalent in spring and autumn.

The increase in Hanwell was considerable, but happily the disease was of a very mild form and no death resulted. The outbreak caused much anxiety to the officials of the Public Health Department, owing to the fact that no hospital was available for the isolation and skilful nursing of the cases. As the result of the spread of the cases and of the fact that a large number attending St. Mark's public elementary schools were affected I was consulted by Dr. Hope on the matter. I visited the district and the

schools with him and he advised his authority to close the latter. Dr. Hope writes in his report as follows:—

“further I reported that the want of isolation
“accommodation is being very much felt, in some
“instances the mothers were expecting shortly to be
“confined; the presence of scarlet fever in the house
“seriously *jeopardizes* her recovery. In one instance
“where the people were *very poor* the mother stated
“that she required the bed on which her infected
“children were lying for the purpose of her accouche-
“ment, which she expected at any time. . . .
“Several bread earners were thrown out of work,
“such as policemen, tram drivers and conductors,
“asylum attendants and Poor Law School attendants
“and teachers, etc.”

In the case of the urban district of Staines there has not been much scarlet fever since 1899–1900. Thus in 1903 only 1 case and in 1904 only 3 cases were notified, but in 1905 the notifications increased to 21.

In the report on Tottenham the medical officer of health deals at length with the subject of “return” cases, *i.e.*, persons who have contracted the disease after the discharge from hospital of another member of the same household who has suffered from the same disease. Nine such cases occurred during the year. He refers in detail to a recent report of the Metropolitan Asylums Board on the subject and also to reports of the Mnsall Fever Hospital, and deals with the action which has been taken in France and America in adopting the “cubicle” system of isolation in scarlet fever hospitals and as to the steps which are taken to ensure, by a system of baths and irrigation of the ears and nose by an antiseptic solution, the complete disinfection of the patient.

In Wealdstone scarlet fever was present in sporadic form through the greater part of the year, and the opinion of the medical officer of health is that many of the cases were due to contact with unrecognized or concealed cases. A somewhat similar opinion is expressed by the medical officer of Uxbridge rural district as to the occurrence of cases in the parish of Harefield.

DIPHTHERIA AND MEMBRANOUS CROUP.

The number of cases notified during 1905 as being diphtheria was 1,336, whilst 25 cases were notified as membranous croup.

Cases were notified in every district but Staines (urban), and only 1 case each was notified in Greenford and Ruislip-Northwood.

The cases of membranous croup occurred in—

Acton	2	Tottenham ..	7
Brentford ..	2	Twickenham ..	1
Chiswick ..	1	Willesden ..	2
Edmonton ..	2	Staines (rural) ..	4
Southall-Norwood	4		

Adding the cases of membranous croup to diphtheria (1,361) the case rate is equal to 1·40 for every 1,000 persons living.

The deaths, fully corrected, were 134, equal to a death-rate of 0·138 per 1,000 persons living, and a case mortality of 9·8 per cent. at all ages.

The following table gives the case-rate and death-rate per 1,000 and the case mortality per cent. for the last five years :—

Diphtheria and Membranous Croup.

Year.	Cases.	Corrected Deaths.	Case rate	Death-rate.	Case mortality per cent.
			Per 1,000 living.		
1901	1462	181	1·84	0·228	12·3
1902	1495	218	1·79	0·261	14·5
1903	1145	132	1·29	0·148	11·5
1904	1480	139	1·59	0·149	9·3
1905	1361	134	1·40	0·138	9·8

The age distribution of the cases and deaths during 1905 was as follows :—

*Age Distribution.**

Age group.	Cases.	Corrected deaths.	Case mortality per cent.
0—	12	2	16·6
1—	401	77	19·2
5—	689	51	7·4
15—	137	2	1·4
25—	122	2	1·6
65 and up	—	—	—

* In the reports relating to Enfield and Uxbridge (rural) the number of cases in each age group is not given, and it has been necessary to distribute them in the proportion which obtains in the rest of the County.

The above table shows clearly how much more fatal the disease is amongst children under five years of age.

In the following Table the notifications and the deaths *recorded* in each district report are set out in detail :—

As regards the several districts it is reported that in Acton there was a marked increase in diphtheria in the North Ward, due to an outbreak in the later part of the year in the district around Willesden Junction. This part has been relatively free from the disease during the last few years.

The spread of the disease by children who are in an infective condition but are not clinically ill, and so are able to attend school, is demonstrated in this outbreak. Thus the cases occurred in groups, and on each occasion notifications ceased after the examination of the throats of the children attending the same school, and the detection of a mild case of sore throat or of the diphtheria bacillus in the throat of a child not otherwise obviously ill.

In Brentford there was also outbreak of the disease, which began at the end of June and lasted for several months. Dr. Bott states that many cases were treated by parents as mere sore throats, and medical aid was not called in until too late.

In Ealing there was an increase of diphtheria cases during the year.

In Hampton an outbreak occurred during the spring. In Hayes 9 cases were notified, one in June and the others after November, four of which were from one cottage, which was found to be very damp, in an insanitary condition, and provided with water from a polluted well, which was afterwards condemned and closed.

Dr. Steegmann reports an increased number of cases in Heston and Isleworth. These appear to have occurred throughout the year, and did not assume an epidemic character. The influence of schools in tending to cause spread of the disease is referred to.

In Southall-Norwood the incidence of diphtheria was low. Dr. Windle gives details of some of the cases. In one case suspicion arose that infection was contracted from a relative who visited the house and who was a nurse at an isolation hospital. This case probably infected two other children at school. A case of membranous croup was followed by three cases of diphtheria in the same family.

In the Uxbridge rural district cases were notified from West Drayton, Yiewsley and Cowley.

In the case of Sunbury, 10 cases were notified. This was a marked decrease compared with the number of cases reported in the previous year when the disease was epidemic, and is what might be expected, inasmuch as the majority of susceptible persons had probably had the complaint and were thus rendered immune.

In connection with the treatment of cases of diphtheria, comment is made by many of the medical officers in their reports as to the value of the early use of diphtheria antitoxin, and in most of the districts arrangements have been made for keeping doses of the serum at the offices of the public health department, or elsewhere, where it can be readily obtained by medical practitioners, and for the poorer class of residents it is supplied free of charge.

TYPHOID FEVER.

The number of cases of typhoid or enteric fever notified in the County in 1905 was 281. This represents a case rate of 0·28 per 1,000 persons living. Cases occurred in all districts except Greenford, Hampton Wick, Hanwell, Hayes, Kingsbury, Ruislip-Northwood, Wealdstone and South Mimms.

The corrected deaths amounted to 51, which gives a death rate per 1,000 of 0·05 and a case mortality per cent. of 18·1 for the County.

The following Table shows the case rate and death-rate per 1,000, and the case mortality per cent. for each of the last four years :—

Typhoid Fever.

Year.	Cases.	Deaths.	Case rate.	Death rate.	Case mortality per cent.
			Per 1,000 persons living.		
1901	482	86	0·60	0·108	17·3
1902	575	106	0·69	0·127	18·4
1903	356	51	0·40	0·057	14·2
1904	302	46	0·32	0·050	15·2
1905	281	51	0·28	0·052	18·1

It will be seen that there has been a steady decrease during recent years in the cases of this disease, but the case mortality was distinctly higher last year.

Age Distribution.

Age group.	Cases.	Corrected deaths.	Case mortality per cent.
0—	—	—	—
1—	12	2	16·6
5—	76	6	7·8
15—	71	14	19·7
25—	122	29	23·7
65 and upwards.	—	—	—

The number of cases of typhoid fever notified and the deaths *recorded* in each district are set out in the following table :—

TABLE 9.—Enteric Fever. Age Distribution of Cases and Deaths, 1905.

	CASES NOTIFIED.							DEATHS RECORDED.						
	All Ages.	Un- der 1.	1—5.	5— 15.	15— 25.	25— 65.	65 and up.	Un- der 1.	1—5.	5— 15.	15— 25.	25— 65.	65 and up.	All Ages.
URBAN.														
Acton	12	—	—	1	5	6	—	—	—	—	2	4	—	6
Brentford	6	—	1	2	1	2	—	—	—	—	—	1	—	1
Chiswick	9	—	—	2	2	5	—	—	—	—	—	1	—	1
Ealing (<i>Borough</i>)	10	—	1	1	3	5	—	—	1	—	1	1	—	3
Edmonton	44	—	3	16	11	14	—	—	—	1	1	4	—	6
Enfield*	9	—	—	—	—	—	—	—	—	—	—	—	—	4
Feltham	2	—	—	—	—	2	—	—	—	—	—	—	—	—
Finchley	8	—	—	—	4	4	—	—	—	—	1	—	—	1
Friern Barnet	8	—	—	1	5	2	—	—	—	—	—	—	—	—
Greenford	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hampton	2	—	1	1	—	—	—	—	—	—	—	—	—	—
Hampton Wick	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hanwell	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Harrow	3	—	—	1	—	2	—	—	—	—	—	1	—	1
Hayes	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hendon	7	—	—	1	4	2	—	—	—	—	—	—	—	—

It will be seen that no cases were notified in Greenford, Hampton Wick, Hanwell, Hayes, Kingsbury, Ruislip-Northwood, Wealdstone, or South Mimms. In many of the other districts the cases were few and sporadic, and no remarks are specially made in the reports as to the suspected cause.

In the case of Finchley it is stated by Dr. Taylor that in several cases there was indication of infection having been contracted outside the district. In Hornsey, 3 cases, in Teddington 1 case, and in Hendon (rural) 1 case, are said to have been infected elsewhere than in the district.

Contaminated shell fish is reported to have been the most likely cause of two cases in Hampton, 3 cases in Hornsey, 1 case in Hendon (rural), 3 cases in Friern Barnet and of several cases in Edmonton.

In Edmonton suspicion also arose as to fried fish, inasmuch as several patients volunteered the information that they had eaten fried fish on a date that fitted in as regards incubation period, with the onset of the illness.

In Friern Barnet, 3 cases appeared to have been infected at a family party which took place outside the district and at which oysters were partaken. Out of a total of 21 guests, seven are stated to have contracted the disease.

As regards the cases in Uxbridge rural district, 1 was at Hillingdon, 2 were navvies engaged on railway works, and 4 at Yiewsley. It is stated that "there is always a certain amount at Yiewsley owing to some of the inhabitants frequently drinking river water."

COUNTY OF MIDDLESEX.

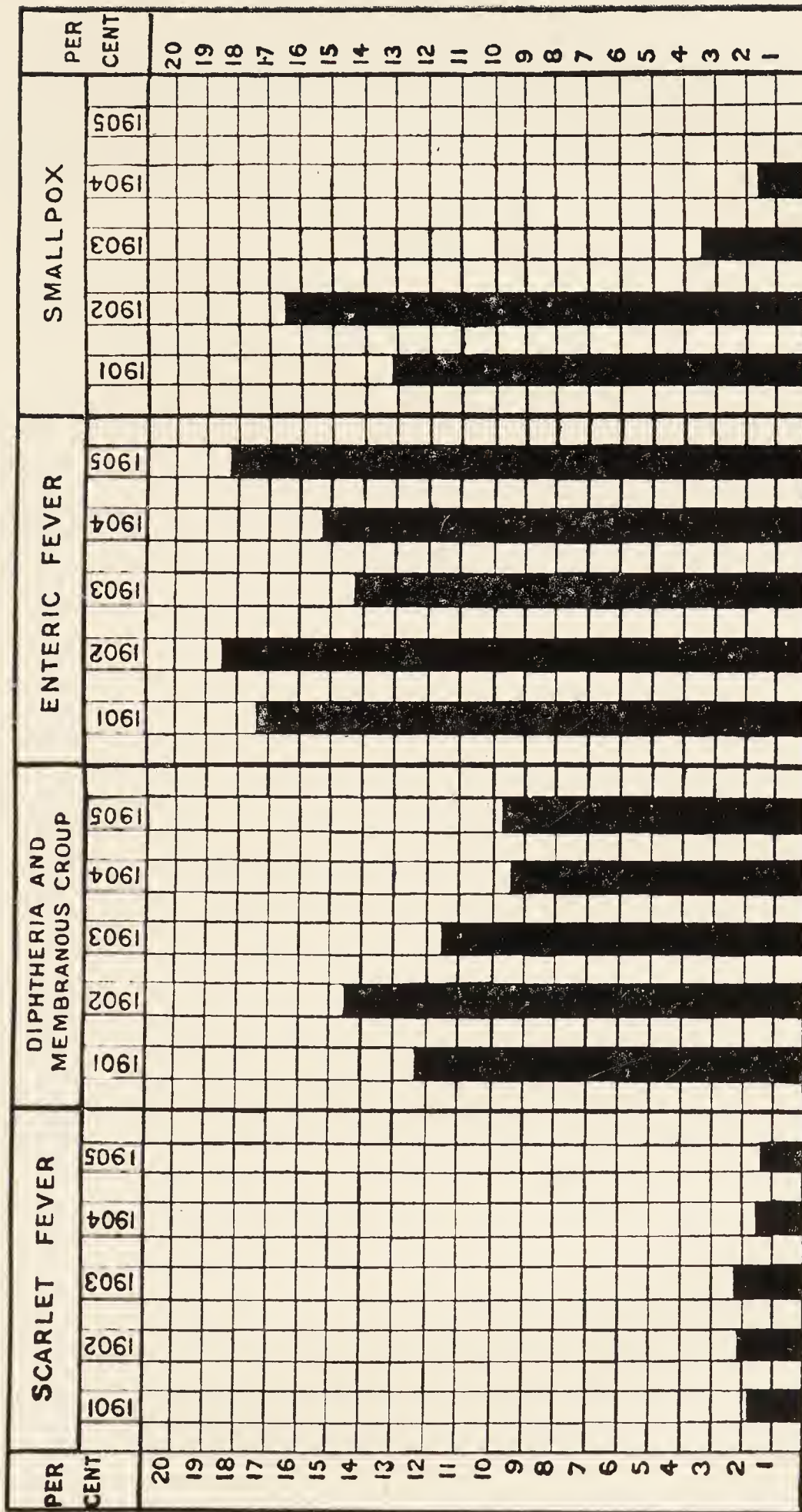


DIAGRAM 6, SHOWING MORTALITY PER CENT. OF CASES NOTIFIED.

The 3 cases in Staines (rural) all occurred in the same house in three consecutive months, and personal infection appears to have had cause in the later cases.

TYPHUS FEVER.

No case of typhus fever was notified in the County during the year.

In March, 1906, however, I noticed in a monthly return of notifications of infectious disease occurring in Surrey, which I receive from Dr. Seaton, the County Medical Officer, that a case of typhus which had been notified from Richmond Royal Hospital, was a patient who was admitted suffering with iritis (a disease of the eye) from a district in Middlesex. I at once made inquiry into the matter, and Dr. Crocker, the Medical Officer of Health of Richmond, kindly gave me the following particulars:—The patient was admitted early in February, 1905, and when first seen on February 3rd, he was found to be delirious, the temperature was high and fluctuated between 103° F.—105° F. There was a profuse eruption on the chest and back of arms, not raised, and of a mulberry colour, somewhat like purpura, but there were no large patches. The rash began to disappear in a few days, but the symptoms did not improve and the patient died on February 9th. “There was a little doubt about the diagnosis.” As soon as suspicion of typhus fever arose, Dr. Crocker communicated with the Medical Officer of Health of the district. From inquiries which were made at the house of the patient, it did not appear that any other case of illness had occurred which raised suspicion of typhus, although about two or three weeks before a child had died in this house from influenza. No other suspicious cases arose.

CONTINUED FEVER.

Two cases were notified during 1905, as suffering from continued fever, namely 1 in Twickenham and 1 in Hendon (rural) districts respectively.

PUERPERAL FEVER.

During the year 53 cases were notified as suffering from puerperal fever, and the corrected number of deaths amongst residents of the County which were registered is 45.

For each of the last five years the number of cases and deaths (corrected) have been as follows :—

Puerperal Fever.

Year.	Cases notified.	Deaths (corrected).	Case rate per 1,000 Births registered.
1901	35	35	1·5
1902	42	38	1·7
1903	48	37	1·9
1904	56	46	2·1
1905	53	45	2·0

The case rate given above is based on the number of births *registered*. This does not represent the actual number of women who gave birth to a child, inasmuch as stillbirths are not included. The number of the latter may differ from year to year, but there is no method by which this can be obtained. Hence it is possible that part of the fluctuation in the rate may be accounted for by a variation in the proportion between the births registered and the number of stillbirths. Puerperal fever may occur after the birth of a stillborn child just as after that of a living child.

The cases which were notified are recorded in the reports relating to the following districts:—

TABLE 10.—*Puerperal Fever.*

—						Births.	Cases.
<i>Urban.</i>							
Acton	..	..	..	..	..	1,527	3
Brentford	..	..	..	..	..	530	1
Chiswick	..	..	..	..	..	947	—
Ealing	..	..	..	..	..	1,072	1
Edmonton	..	..	..	..	..	1,947	3
Enfield	..	..	..	..	..	1,357	1
Feltham	..	..	..	..	..	176	—
Finchley	..	..	..	..	..	743	—
Friern Barnet	..	..	..	..	..	291	—
Greenford..	..	..	..	..	..	19	—
Hampton	..	..	..	..	..	231	1
Hampton Wick	..	..	..	..	..	37	—
Hanwell	..	..	..	..	..	510	1
Harrow	..	..	..	..	..	313	—
Hayes	..	..	..	..	..	98	—
Hendon	..	..	..	..	..	708	1
Heston and Isleworth	..	..	..	..	..	1,030	2
Hornsey	..	..	..	..	..	1,567	3
Kingsbury	..	..	..	..	..	18	—
Ruislip-Northwood	..	..	..	..	..	115	—
Southall-Norwood	..	..	..	..	..	576	—
Southgate	..	..	..	..	..	463	1
Staines	..	..	..	..	..	157	—
Sunbury	..	..	..	..	..	138	—
Teddington	..	..	..	..	..	381	—
Tottenham	..	..	..	..	..	3,588	7
Twickenham	..	..	..	..	..	713	5
Uxbridge	..	..	..	..	..	262	—
Wealdstone	..	..	..	..	..	262	—
Wembley	..	..	..	..	..	156	3
Willesden	..	..	..	..	..	4,201	13
Wood Green	..	..	..	..	..	1,158	5
<i>Rural.</i>							
Hendon	..	..	..	..	..	203	1
South Mimms	..	..	..	..	..	67	—
Staines	..	..	..	..	..	574	1
Uxbridge	..	..	..	..	..	366	—

As the result of the system of weekly returns of notifications which is now made by each medical officer of health to the County Council I become aware of each case within a few days of its notification, and am thus able to institute inquiry as to whether a midwife has been connected with the case, if for any reason she has failed to notify the Council, as local supervising authority under the Midwives Act, of the occurrence of the case. As a matter of fact, in practice I usually hear of a case at once, upon the day it is notified, as most of the local medical officers of health so readily appreciate the importance of prompt action that they give me information by telephone or by letter as soon as they receive a notification certificate under the Infectious Diseases (Notification) Act from a medical practitioner.

Of the 53 cases notified, 10 occurred in patients who were attended in their confinement by certified midwives, and 5 in patients attended by women who have not been certified under the Midwives Act, but who are allowed under the provisions of Section 1 of the Act to do midwifery work until the year 1910 so long as they do not call themselves midwives or imply that they are certified by the Central Midwives' Board.

In 2 other cases nobody except some immediate friend appears to have been in attendance. In 2 the patients were attended by medical men, and in each the monthly nurse was also a certified midwife.

In the remaining cases the patients were attended by medical practitioners.

RELAPSING FEVER. CHOLERA. PLAGUE.

No cases of these diseases were notified.

ERYSIPELAS.

Notifications as to 655 cases of erysipelas were made during 1905, and 31 deaths occurred.

The number of cases in previous years were: 661 cases in 1904, 591 in 1903, 691 in 1902, and 641 in 1901.

Cases were notified in all districts except Kingsbury and Sunbury, as follows :—

Urban.

Acton	28	Ruislip-Northwood	5
Brentford	23	Southall-Norwood	20
Chiswick	35	Southgate	25
Ealing (<i>Borough</i>) ..	29	Staines	1
Edmonton	66	Sunbury	—
Enfield	3	Teddington	11
Feltham	2	Tottenham	82
Finchley	15	Twickenham	11
Friern Barnet	8	Uxbridge	13
Greenford	1	Wealdstone	9
Hampton	11	Wembley	1
Hampton Wick	4	Willesden	86
Hanwell	23	Wood Green	28
Harrow	8		
Hayes	1		

Rural.

Hendon	8	Hendon	2
Heston & Isleworth	33	South Mimms	1
Hornsey (<i>Borough</i>)	39	Staines	16
Kingsbury	—	Uxbridge	7

WHOOPIING COUGH.

The corrected number of deaths from whooping cough during 1905 was 172, equal to a death-rate of 0·33 per 1,000 persons living. The deaths and death-rate for each of the last five years were as follows:—

Whooping Cough.

Year.	Deaths.	Death-rate per 1,000.
1901	238	0·30
1902	225	0·27
1903	363	0·40
1904	172	0·18
1905	324	0·33

The number of deaths as well as the death-rate therefore show a marked increase for the year 1905. If comparison is made (*see* Diagram 7) of the death-rates from whooping cough and from other chief infectious complaints it will be seen that the death-rate from whooping cough is much in excess of that from scarlet fever or diphtheria and membranous croup, while it is more or less equalled by the death-rate from measles.

A matter of considerable importance in connection with the deaths from this disease is the fact that 160, or nearly one-half of the total number, occurred amongst children under 1 year of age (*see* Table 5. Causes of Infantile Mortality, page 42). It demonstrates how extremely fatal the complaint is to infants. In the absence of information as to the number of cases, and their ages, we are not able to tell what was the incidence of the disease upon infants, but the actual number of deaths indicates, in some degree, the extent to which children in arms are exposed

to the disease when it is prevalent. This exposure is no doubt almost unavoidable in many households of the poorer class, but it is probable that in many instances want of care and a tendency to regard the complaint as a trivial one has much to do with the occurrence of the disease amongst infants.

Reference is made in some of the district reports as to the prevalence of whooping cough during the year. Thus it is stated that it was prevalent or very prevalent in Chiswick, Edmonton, Friern Barnet, and Wealdstone. A severe outbreak occurred in Hampton and led to closure of one school. In Teddington, isolated cases are known to have occurred. In Tottenham whooping cough was epidemic during the early part of the year, and shows the most unsatisfactory result of all infectious diseases as compared with the previous year.

The number of deaths recorded in each district report will be found in one of the tables at the end of this report.

As regards the number of cases which occurred, I find that in Acton 126 cases, in Tottenham 1,713, and in Willesden 1,095 cases respectively, came to the knowledge of the medical officers of health. The information was chiefly supplied from school teachers and attendance officers.

MEASLES.

Measles is notifiable in the district of Hampton, and during the year 31 cases were notified to the Medical Officer of Health as follows :—

Under 1	1-5	5-15	15-25	25-65
2	10	13	2	4

Among these cases 1 death occurred, namely, in a child under 1 year of age.

The disease is not notifiable elsewhere in the County and there is therefore no complete information as to the total which occurred, though in several districts information bearing on the matter is obtained and set out.

The corrected number of deaths in the County was 176, or a death rate of 0·18 per 1,000 persons living.

The corresponding number of deaths and the death-rates for the last five years are set out in the following table:—

Measles.

Year.			Corrected deaths.	Death-rate per 1,000 persons.
1901	..	..	174	0·21
1902	..	..	275	0·33
1903	..	..	249	0·28
1904	..	..	331	0·35
1905	..	..	176	0·18

In Diagram 7 the death-rates are shown in graphic form. It will be seen that, as in the case of whooping cough, the death-rate from measles is greater than from either scarlet fever or diphtheria and membranous croup. It will also be noticed that in each alternate year there appears to be a tendency to increase in the death-rate.

As regards the number of cases occurring in the different districts it is reported that information was sent to the respective Medical Officers of Health of 301 cases in Acton, 25 cases in Teddington, 540 cases in Tottenham, and 1,636 cases in Willesden.

This information was, for the most part, forwarded by school teachers.

In four reports it is definitely stated that the disease was not prevalent in the district, viz.: Brentford, Chiswick, Finchley, and Hanwell, whilst in several others no statement is made.

In Ealing, measles was present to a marked extent in the western part of the Borough, and led to the closure of some of the elementary schools. Attention is drawn to the need of greater care of children suffering from the complaint.

In Edmonton there were practically no cases until the end of October, when the number increased very suddenly, and by the time information of the presence of the disease was available to the Medical Officer of Health it was found that many of the schools were already badly affected. School closure was not resorted to as it was felt that very little good in the way of prevention could be done at so late a stage in an urban area of this class. Arrangements have been made for establishing a system of notification to the Medical Officer by the teachers and attendance officers.

In the districts of Friern Barnet, Staines (urban), Sunbury, Twickenham, Uxbridge (urban) and Wealdstone, outbreaks occurred which, in nearly each case, appear to have been associated with attendance of the children at the infant departments of public elementary schools and led to closure.

It is in the infant departments of schools that this disease is most likely to spread, inasmuch as the older children in the boys' and girls' departments have for the most part already suffered from the complaint and have obtained immunity to it. Consequently it is usually sufficient with a view to prevention of the disease, speaking generally, to limit action in the way of school closure to the infant departments. Indeed, if information can be obtained of the occurrence of the early cases, it is likely that exclusion of affected scholars and of children from infected houses, would be sufficient to prevent the spread of the disease. In order to get this information it is necessary that a system of prompt notification by school teachers or attendance officers to the Medical Officer of Health should exist, as without this he usually has no knowledge of the presence of the disease until it is too late to take any useful action in the way of exclusion. As regards the area of the County for which the Education Committee of the County Council is the local authority the question of the best way of dealing with the medical supervision of elementary school children, including the prevention of spread of disease, is now under consideration.

DIARRHŒA.

The corrected number of deaths from diarrhœa, belonging to the County, which occurred during 1905 was 547, which is equivalent to a rate of 0·60 per 1,000 persons living. This does not include deaths due to enteritis.

The following table shows the number of deaths and the death-rates per 1,000 persons living for each of the last five years :—

Diarrhœa.

Year.			Deaths.	Death rate per 1,000 living.
1901	..	..	723	0·91
1902	..	..	465	0·55
1903	..	..	449	0·50
1904	..	..	1,128	1·21
1905	..	..	547	0·60

During the above years the number of deaths (corrected) from diarrhœa amongst children under one year of age have been as follows :—

Diarrhœa—Deaths under one year of age.

Year.			Deaths.	Rate per 1,000 births.
1901	..	..	600	26·66
1902	..	..	385	16·19
1903	..	..	346	13·61
1904	..	..	922	34·93
1905	..	..	453	17·09

The above tables show that by far the greater number of deaths from diarrhœa are accounted for by those which occur in children before they are one year old. At this early period of life diarrhœa is very liable to occur owing to want of care ; to ignorance or want of care as to feeding, especially where the child is or has to be weaned and has been brought up by hand ; and perhaps to meteorological conditions. Both years, 1902 and 1903, when the rate was low, were cool summers, especially the year 1903. In 1905 the weather again was not so hot as in 1904.

PHTHISIS AND TUBERCULAR DISEASE.

During 1905 there occurred 858 deaths from phthisis amongst residents of the County. In addition, 372 deaths were attributed to other forms of tuberculous diseases, or a total of 1,230 deaths due to infection by the tubercle bacillus.

The following table shows the corrected number of deaths for each of the last five years, together with the death rates per 1,000 persons living:—

Year.	Phthisis.		All Tuberculous Disease.	
	Deaths.	Death rate per 1,000 living.	Deaths.	Death rate per 1,000 living.
1901	752	0·94	1,139	1·43
1902	843	1·01	1,277	1·53
1903	788	0·88	1,221	1·37
1904	993	1·06	1,428	1·53
1905	858	0·88	1,230	1·12

These deaths occurred at the following age periods:—

—	1901.		1902.		1903.		1904.		1905.	
	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.	Phthisis.	Other Tuberculous Disease.
0—	8	124	15	147	12	149	11	163	7	104
1—	14	131	18	144	25	143	33	134	19	135
5—	33	70	22	70	33	57	40	65	28	62
15—	105	20	132	26	133	31	176	23	136	26
25—	562	38	623	44	556	51	696	39	632	42
65 and upwards	30	4	33	3	29	2	37	11	36	3

The figures in the last table show that phthisis, or the disease usually known as consumption, exacts its heaviest toll during the active and most useful period of life, whilst other tuberculous complaints cause mortality chiefly under 5 years of age. It would be an interesting matter if figures were available for shorter age periods between 25 and 65 years of age, with a view to seeing whether the greater number of the deaths in this group occurred at the earlier years, as is, perhaps, the case. I find from the annual report for 1904 of the Medical Officer of Health of the Administrative County of London that the number of deaths in London from phthisis at several age periods were thus distributed :—

Age period	} 0-, 5-, 10-, 15-, 20-, 25-, 35-, 45-, 55-, 65-.
Phthisis deaths	} 261, 77, 128, 394, 651, 1580, 1867, 1536, 765, 295

In some of the reports comment is made on this disease and account is given of the action taken by the sanitary authority with a view to its prevention. From this it appears that in 4 districts arrangements have been made for the voluntary notification of cases, namely, in :—

Acton, since 1902 ; Finchley, since 1903 ;
Chiswick, since 1903 ; Harrow.

In all these cases inquiry is made at the house, and instructions, usually by leaflets, given.

The number of notifications received have only been few.

In Hanwell medical practitioners have been asked to notify cases gratuitously, but none have done so.

Disinfection and cleaning of rooms are carried out by some of the sanitary authorities after removal or death of a patient. This it is stated is offered and carried out, if accepted, free of charge in the following districts when a death from consumption is registered or whenever a case comes to the knowledge of the sanitary authority, namely, in :—

Edmonton,	Southgate,
Friern Barnet,	Wealdstone,
Hanwell,	

The Medical Officers of the following districts recommend voluntary notification :—

Brentford,
Ealing,
Wealdstone.

whilst the Medical Officers of Health of Tottenham and Wembley express the opinion that the disease should be compulsorily notifiable.

The District Councils of Acton and Ealing have made arrangements for the maintenance of beds for the use of residents of their districts at the Mount Vernon Sanatorium.

The Medical Officers of Brentford, Chiswick, and Tottenham express regret that the movement to provide a sanatorium for the use of residents in the County has not yet been successful.

CANCER.

The total number of deaths (corrected) from cancer amongst residents of Middlesex during 1905 was 788, which represents a death-rate of 0·81 per 1,000 persons living. In the following table the corrected deaths and the death-rates for the last five years are given.

Cancer.

Year.			Deaths.	Death rate per 1,000 living.
1901	..	..	642	0·80
1902	..	..	665	0·79
1903	..	..	731	0·82
1904	..	..	712	0·76
1905	..	..	788	0·81

BACTERIOLOGICAL EXAMINATION IN CONNECTION WITH
CASES OF SUSPECTED INFECTIOUS DISEASE.

The aid of bacteriology in connection with the occurrence of infectious disease has been recognised by many of the District Councils in the County, and in these cases provision has been made for the examination free of charge of material in cases of disease of doubtful nature, or during the early stages of a complaint when it is not possible, from the clinical symptoms, to give a definite diagnosis.

The diseases in which bacteriological examination is of special use are diphtheria, consumption, and enteric or typhoid fever. In the case of diphtheria, bacteriological examination of material from the throat and nose of “contacts,” that is to say, of persons who have been

in association with another who is found to be suffering from the complaint, is also of considerable importance with a view to the prevention of the spread of the disease. It has been found that such persons may have suffered from what was regarded at the time as not more than an ordinary sore throat, but on bacteriological examination the diphtheria bacillus has been found to exist in their throats. Occasionally also it has been found in apparently normal throats of persons who have been in association with patients suffering from diphtheria.

As examples of these remarks relative to diphtheria, the following instances may be quoted from the report of Dr. Thomas, Medical Officer of Health of Acton. An outbreak in one ward of the district, in the latter part of 1905, occurred in batches of cases. On the occurrence of the first group, "examination of other children suffering from sore throat led to the discovery of diphtheria in one of the pupils." On a recurrence of the disease in October, "a child in whose throat the diphtheria bacilli were found, was attending school." This case was followed by freedom from the disease in the district for a month, but on "November 18th two cases and on November 22nd one case were notified. The source of infection could not be traced until an examination of all suspicious cases of sore throat was undertaken, and a mild case of diphtheria was again discovered!"

MIDWIVES ACT, 1902.

During the year 1905, namely on April 1st, section 1 (1) of this Act came into operation. This is to the effect that on and after that date no woman may call herself a

“midwife” (which is defined in the Act as meaning a woman certified as a midwife by the Central Midwives Board) or take any title implying that she is certified under the Act.

It is no offence, however, for a woman who has not been certified to attend by herself other women in their confinements. After April, 1910, however, this is altered, as section 1 (2) provides that after that date “no woman shall habitually and for gain attend women in childbirth otherwise than under the direction of a qualified medical practitioner unless she be certified” under the Act.

In view of this state of affairs it is advisable to keep in touch not only with those certified midwives who have notified the County Council, as Local Supervising Authority, of their intention to practise, but also of any woman who is known to have been in the habit of attending midwifery cases; first, with the object of seeing that they do not hold themselves out as midwives, and secondly, in case they do occasionally attend a childbirth alone, to give them instruction as to necessary habits of cleanliness.

All such women in the County whose addresses are known have been visited at least once by myself and several of them more frequently, since I took up the duties of County Medical Officer. Addresses of some 300 women of this kind have been obtained, but from information got in one way and another there is reason to think that as the result of the Act coming into force a large number of these are limiting themselves to nursing cases which previously they would not have hesitated to deal with entirely by themselves, whilst some have given up work of this kind altogether.

As regards certified midwives the following is an account of the administration of the Act up to the end of the year 1905.

During the year under review, notification was given to the County Council by 208 certified midwives of their intention to practise within the County. These women resided in the following districts:—

Acton	12	Southgate ..	4
Brentford ..	6	Staines (urban)	1
Chiswick ..	16	Sunbury ..	4
Ealing	3	Teddington ..	6
Edmonton ..	16	Tottenham ..	17
Enfield.. ..	12	Twickenham ..	5
Feltham	5	Uxbridge (urban)	3
Finchley	3	Willesden ..	21
Hampton	2	Wood Green ..	3
Hanwell	2	Hendon (rural)	1
Harrow	2	Staines (rural)	11
Hendon (urban)	2	Uxbridge (rural)	4
Heston & Isleworth	22	Living on the	
Hornsey	6	borders of and	
Ruislip-Northwood	1	practising in	
Southall-Norwood	4	the County ..	14

In the following districts no *certified* midwives appeared to be practising, inasmuch as no notice of intention to practise as required by section 10 of the Act was received from any woman residing therein, viz:—

Friern Barnet.	Kingsbury.
Greenford.	Wealdstone.
Hampton Wick.	Wembley.
Hayes.	South Mimms.

I may mention that as soon as the roll of the Central Midwives Board is published the names are carefully gone through, and all those who reside in Middlesex are at once written to by me informing them of the requirements of the Act as to notification, and enclosing a blank form for them to fill in and return should they intend to practise. In addition to those women who have notified the Council, letters have been written to 305 other certified midwives living in the County. About half of these have not replied to my communication, and as up to the end of the year it was not possible to follow them all up, I was without information as to whether they are practising or not.

From the midwives who have notified the Council that they are in practice 298 notifications have been received under the requirements of the Rules of the Central Midwives Board. These related to the following matters, viz. :—

In 215 cases the notification was to the effect that medical aid had been sent for, either owing to the state of the child or mother

In 74 cases the notification stated that the midwife had delivered the mother of a stillborn child.

In 9 cases that the death of the child had taken place.

No notifications of cases of puerperal fever as such were received, these in nearly all cases being included in the notification that a medical practitioner had been sent for owing to rise of temperature in the patient.

As regards the last-mentioned notifications, I always make inquiry at once into the matter, with a view to seeing whether the case is regarded as one of puerperal fever by the medical man called in. In other cases inquiry is made if the circumstances raise any suspicion in my mind.

When a medical practitioner is called in to see a case where there is a rise of temperature, if he decides that it is due to puerperal fever he has to notify the fact to the local medical officer of health, and it is of course possible that this might be done and that the County Council would not have knowledge of it for some time afterwards. I am glad to say, however, that by means of the weekly returns which I have arranged to receive from the local medical officers of health of the cases of infectious disease throughout the County, I am supplied with information as to the number of cases of puerperal fever in each district, and if I have not already obtained particulars as to a case in any one district, I at once communicate with the medical officer in order to see whether there is any reason to think that a certified midwife is concerned in the case. As a matter of fact, however, in most instances the district medical officers now send me such information at the earliest possible moment without waiting for enquiry on my part, and I am thus able to visit the midwife at once and take, in conjunction with the medical officer, any steps which may be indicated in order to prevent the spread of infection. The assistance which has been received in this way from the local officials has been considerable, and of much advantage.

There occurred in the County, in 1905, a total of 53 cases of puerperal fever. Of these, 10 cases occurred in

patients attended by midwives, and 5 cases in patients attended by women who have not been certified. In 2 cases certified midwives were acting as monthly nurses under a medical man, and in 2 cases nobody except some friend appears to have been in attendance.

In the remaining cases the patients appear to have been attended by medical practitioners in the ordinary way.

During the year two midwives were suspended from practice by the Council with a view to preventing the spread of infection. One of these was for puerperal fever, and the other owing to the occurrence of an infectious complaint in the house of the midwife.

In 3 other cases of puerperal fever which terminated fatally, and which were the subject of an inquest, the midwife was directed by the Coroner not to attend any other cases for a given period, and as this was being observed, it was not considered necessary to suspend them formally.

Two midwives were sent cautionary letters by the Council for failing to observe certain rules.

In other cases where breaches of the rules came under observation, as they were apparently due to misunderstanding of the rules and not to negligence, it was considered sufficient to warn them verbally when inquiry was made and to use the occasion for the purpose of instruction.

The total visits made during the year was 438.

In addition to the certified midwives, there are in the County nearly 300 women, whose addresses I have in my office, and who are stated to be engaged in attending women in their confinements, usually without a medical man. A large number of these have been visited and informed of their position under the new Act.

In May, 1905, I reported to the General Purposes Committee that as the result of my experience of the administration of the Act in Middlesex during twelve months I considered it advisable that, with a view to more frequent inspection and greater control of midwives, it was desirable that the question of appointing a female inspector should be considered. The Committee decided not to take any action then in the matter, but to reconsider the question at the end of six months, when it was decided to recommend the Council to appoint an inspector as had been suggested in my previous report. This recommendation was carried, and in due course, namely, early in 1906, the inspector took up her duties.

ISOLATION HOSPITALS.

This subject needs to be dealt with in two parts—(1) Isolation Hospitals for ordinary infectious complaints, *e.g.*, scarlet fever, diphtheria, and enteric fever; (2) Isolation Hospitals for smallpox.

(1) *Isolation Hospitals for ordinary infectious diseases.*

The condition of affairs has to some extent undergone alteration since the year 1904, as will be seen on comparing the details of the hospital accommodation available during

1905, which is set out below. There is no marked increase in the total accommodation, although in two districts, viz., Ealing and Harrow, additions to the existing hospitals were completed during the year, and so far as each of these districts is concerned a greater number of beds is available, but on the other hand one district, viz. Wood Green, has now entered into an arrangement to send cases to Hornsey Isolation Hospital, and has given up the use of a temporary hospital. It is stated in the report of the medical officer of Wood Green, that under the terms of the agreement between the two authorities the hospital is to be enlarged to an extent sufficient for the needs of the two districts, but up to the end of the year this does not appear to have taken place, indeed the arrangement had only been in force some six months.

In addition to the above the district of Wembley has erected a corrugated iron room for the use of male adults suffering from scarlet fever.

It may be said therefore that practically the total accommodation in the County is the same as at the end of 1904.

The other alterations which have taken place during 1905 relate to the arrangements between various authorities in regard to hospital accommodation, and they are as follows:—

Edmonton and Enfield have been constituted a joint hospital district. Previously cases of infectious disease occurring in Edmonton were sent to the hospital provided by the Enfield sanitary authority by arrangement with the latter.

The District Council of Hampton, as the result of negotiations with Hampton Wick and Teddington, has passed the following resolution in regard to the use of their Isolation Hospital by patients from each of the last named districts :—

“That at such times as the hospital is comparatively
“empty, at the discretion of the Medical Officer, and
“when in his opinion there is no reason to apprehend
“an epidemic in Hampton, the Council decide to take
“in four patients from a neighbouring district at a fee
“to be arranged, but that they should refrain from
“adopting any idea of taking in a partner permanently.”

Summarising the conditions which exist in the County, it appears—

- (a) Twenty-one districts have provided isolation hospital accommodation for patients suffering from one or other or all of the diseases known as scarlet fever, diphtheria, and enteric fever.
- (b) Seven districts have made arrangements for the admittance of patients to the hospitals of other authorities.
- (c) Eight have not made provision or entered into any arrangements.

Taking the above, in order :—

- (a) The following are the districts which have hospital accommodation :—

Acton,	Hornsey,
Brentford,	Ruislip-Norwood (jointly
Chiswick,	with Uxbridge),
Ealing,	Southall-Norwood,
Edmonton } (jointly),	Southgate,
Enfield }	Twickenham,
Hampton,	Uxbridge (jointly),
Harrow,	Wembley (a cottage),
Hayes (jointly with	Willesden,
Uxbridge),	Hendon (rural),
Hendon (urban)	Uxbridge rural
Heston and Isleworth	(jointly).
(jointly with Rich-	
mond, Surrey),	

The details as to the provision made are as follows:—

Acton (estimated population, 50,000).—This is a recently-built hospital, situated in the northern part of the district. The administration block is an old mansion, in the grounds of which the hospital buildings have been erected. They consist of a scarlet fever block and an enteric fever block, each containing a pavilion ward for male and a pavilion ward for female patients. There is a third pavilion for diphtheria and cases under observation. The hospital is well arranged and equipped with laundry, disinfector, mortuary ambulance and van sheds,

In addition to the above accommodation it is stated that in case of need there are several rooms in the administration block, which, in case of emergency, could be used for enteric fever cases.

The number of beds (not including cots) is—

Scarlet Fever	14 beds.
Enteric	14 „
Diphtheria	2 „
Observation cases ..	2 „
The total accommoda-	—
tion here is ..	32 „
	—

Brentford (estimated population, 15,762).—The isolation hospital was built in 1892. It contains “an excellent administrative cottage in which is the bacteriological laboratory.” The hospital consists of one block containing four wards arranged so as to deal with at least two distinct diseases at one time. There are two wards and a duty room on each side.

A mortuary building is provided.

In addition to the above a temporary hospital was erected in the Ham in 1902. This is a corrugated iron pavilion containing two wards and a duty room. Dr. Bott suggests that this building should now be moved and placed on the site occupied by the permanent hospital.

In the former are ..	10 beds
In the latter are ..	12 „
	—
Total ..	22 „
	—

Chiswick (estimated population, 33,160).—Isolation hospital accommodation has only recently been provided. The building was opened on April 7th, and is situated at Claypounds Lane, Brentford. It is a permanent structure and comprises an administrative block, two ward pavilions containing four wards, a mortuary and ambulance sheds. The site is ample for extension. Dr. Dodsworth states that the provision of a separate block for typhoid will become a necessity, also an observation ward for doubtful cases.

The accommodation is—

Scarlet fever	..	16 beds.
Diphtheria	} ..	4 „
Enteric fever		
		—
Total	..	20 „
		—

Ealing (estimated population, 46,000).—The extension and alterations at this hospital were completed at the beginning of the year. The building now contains an administrative block, which has been enlarged and improved; a laundry and ambulance block with a steam disinfecting apparatus, a discharge block, and the ward blocks. These last-mentioned comprise two new pavilions, each with two wards for scarlet fever, two observation rooms for doubtful cases, and the old building, which has been remodelled, and contains wards for diphtheria and enteric fever cases, the wards for each of these diseases having no communication, and being approached by separate entrances. In

addition there is a temporary iron building, which is retained as an “emergency block.” Excluding the latter, the number of wards is 12, and the accommodation is as follows:—

Scarlet fever	48 beds.
Diphtheria	8 „
Enteric fever	8 „
Observation wards	4 „
Emergency block	9 „
	—
Total	77 „
	—

By arrangement cases are admitted from the district of Greenford.

Edmonton and Enfield Joint Hospital District (estimated populations: Edmonton, 54,606*; Enfield, 51,315).—This hospital was erected in 1900 by the Enfield District Council. Up to last year, by arrangement cases were admitted from Edmonton, but after a Local Government Board Inquiry Edmonton and Enfield were constituted a Joint Hospital District in 1905 by a Provisional Order afterwards confirmed by Act of Parliament.

The existing total accommodation appears to be as follows:—

Scarlet fever	76 beds.
Diphtheria	13 „
Enteric fever	18 „
	—
Total	107 „
	—

* Exclusive of non-residents in Institutions.

Finchley (see *Hornsey*).

Hampton (estimated population, 7,500).—A new isolation hospital was opened in March, 1904, and, it is stated, “has proved of great service “to the district.”

The hospital consists of one pavilion with four wards, and kitchen, bathroom, and lavatories an administrative block, a laundry and steam disinfecting apparatus, a mortuary and coach-house. A properly-fitted ambulance is also provided.

The accommodation here is

Scarlet fever	6 beds.
Diphtheria	4 „
	—
Total	10 „
	—

Enteric fever cases can be treated if necessary.

By arrangements entered into during 1905 with the districts of *Hampton Wick* and *Teddington* (estimated populations, 2,606 and 16,350 respectively) the accommodation here is made available for 4 cases from each of these districts when the beds are not needed for patients from *Hampton*.

Harrow (estimated population, 13,000).—During the year extensions at this hospital were completed,

and an excellent account is given by Dr. Fletcher Little, together with a plan of the buildings by Mr. Percy Bennetts, the Surveyor, who carried out the work. The buildings now comprise—

An enlarged administration block.

An enlarged ambulance block with room for two ambulances, two disinfection carts, and a steam disinfecting apparatus.

A new scarlet fever block.

A block for diphtheria cases. This is the old block which has had some additions made to it.

The new block contains two wards, one holding six beds and one holding four beds.

The diphtheria block has two wards, for three and two beds respectively.

The accommodation here is :—

Scarlet Fever	..	..	10 beds
Diphtheria	..	..	5 „
			<hr/>
Total	..	..	15 beds
			<hr/>

Hayes (see Uxbridge Joint Hospital District).

Hendon (*urban*) (estimated population, 25,488 ; in this population, that in institutions for non-residents is excluded).—Dr. Andrew states, “the hospital is a temporary structure and consists of two wards capable of properly treating four patients in each. In addition to this there is a

“ small ward which was built as an observation
 “ ward and capable of treating two patients.
 “ There is another large convalescent ward
 “ where the patients take their recreation and
 “ have their meals.”

“ The number of cases treated has many times
 “ exceeded the proper number, thus showing the
 “ necessity for further accommodation.”

This hospital is for scarlet fever only, and no
 accommodation exists for diphtheria.

Total number 10 beds

Heston and Isleworth (estimated population, 35,060).—

This authority has jointly with the borough of
 Richmond (estimated population, 33,320), in
 the County of Surrey, provided an isolation
 hospital, situated at Mogden Lane, in the area
 of the Heston and Isleworth District Council.
 In last year's report Dr. Steegmann drew
 attention to the need which existed for enlarge-
 ment, a need which appears to have existed
 for some time, and has led in the past to
 overcrowding of the scarlet fever wards. He
 again calls attention to the fact that nothing has
 yet been done although the matter is one of
 urgent importance.

The total accommodation at this hospital, allowing
 2,000 cubic feet of space per patient, is :—

Scarlet fever	..	..	34 beds.
Diphtheria	..	..	9 „
Enteric fever	..	..	2 „
			—
Total	..	..	45
			—

Hornsey (estimated population, 85,213).—An isolation hospital for the ordinary infectious diseases has been provided, and is situated at Coppet's Lane. The number of wards is 12, as regards which Dr. Coates informs me :—

“ We have a number of very small wards,
 “ so that the number of beds allotted to each
 “ disease varies as their respective prevalence.”

A fair average apportionment is as follows :—

Scarlet fever	..	..	34 beds.
Diphtheria	..	..	10 „
Enteric fever	..	..	4 „
			—
Total	..	..	48 „
			—

Finchley (estimated population, 28,716) has an arrangement by which 25 beds are reserved in this hospital for its patients, and Wood Green (estimated population, 43,150), also sends cases by an arrangement made during 1905.

Ruislip-Northwood, see Uxbridge Joint Hospital District.

Southall Norwood (estimated population, excluding Asylum, 17,712).—The hospital was opened early in 1904, and contains an administrative block, mortuary and laundry, an isolation and discharging block, and a pavilion block. On the site, which contains 3 acres, there is room for two future pavilion blocks, two isolation blocks, and a lodge-keeper's cottage.

The accommodation is as follows :—

Scarlet fever	..	13 beds.
Diphtheria ..	..	4 „
Convalescents	..	4 „ in a temporary building
		—
		21 beds.
		—

A table is given in the district report showing the cost of the hospital for 1904 and approximate cost for 1905.

Southgate (estimated population, 22,400).—The hospital was opened in 1902. It is situated at Tottenhall Road, Palmer's Green. The site comprises 9 acres, only part of which is at present utilized for hospital purposes.

The hospital at present contains two blocks for patients, viz., a ward block and an isolation block, a laundry block with steam disinfecting apparatus, a mortuary, an entrance lodge, and administrative block. The ward block is used for scarlet fever cases, and the isolation ward for diphtheria or enteric fever cases.

A full description of this building was given in last year's report.

The total accommodation is 18 beds.

Teddington, see Hampton.

Tottenham (estimated population, 124,126).—In the North-Eastern Hospital of the Metropolitan Asylums Board, situated in Tottenham, 100 beds are reserved for the use of the district.

Twickenham (estimated population, 26,000).—It appears that the District Council have continued the tenancy of a temporary hospital. In the report for 1903 it was stated that application for a loan to acquire land for the erection of a hospital had been refused by the Local Government Board, apparently owing to the proximity of the proposed site to the Hounslow Powder Mills. In this year's report it is stated that the Council have acquired an excellent site at Whitton upon which to erect a new hospital, and a report as to the accommodation needed has been drawn up by the Medical Officer and the Surveyor.

The building in use at present is a permanent structure erected 30 years ago, and situated in The Mereway. It contains 3 wards in use and other rooms available if necessary. It is used for Scarlet Fever only.

The accommodation here is 30 beds.

Uxbridge Joint Hospital District.—The constituent authorities are—

Uxbridge (urban), estimated population,	9,165.
Uxbridge (rural)	12,311.
Hayes (urban)	3,000.
Ruislip-Northwood	
(urban)	4,515.

The two last-mentioned districts were parishes in the Uxbridge (rural) district up to 1904, and formed part of the joint hospital district previous to their creation as separate urban districts. By a Local Government Board Order in 1905 they were made constituent authorities in the Board.

The existing hospital was provided in 1882.

It is situated at Hillingdon East and consists of an administrative block—a dwelling-house adapted for the purpose—a brick ward block for scarlet fever, a temporary galvanised iron ward block for diphtheria, some old wooden structures partly used for convalescents from scarlet fever and for sleeping quarters for the nursing staff, a laundry block in bad structural condition, and a recent mortuary building.

During 1905 I was requested by the Hospital Board to confer with Dr. Davidson, the Medical Officer of the hospital with a view to reporting on the existing accommodation and its adequacy or otherwise for the needs of the district. The report which we presented will be found as an appendix to this report. As the result of our report an architect was instructed to draw up plans showing how the first of the two courses suggested could best be carried out.

The existing accommodation on the basis of an adequate amount of cubic space per bed is as follows:—

Scarlet fever	..	..	12 beds.
Diphtheria	..	..	9 „
			<hr/>
Total	..	..	21 beds.
			<hr/>

Wealdstone, see Hendon (rural).

Wembley (estimated population, 5,895).—From this year's report I gather that there is an Isolation Cottage at Alperton, which was made use of and found useful for cases of scarlet fever during 1905. A large corrugated iron room was erected during the year for accommodating adult male cases.

No information is given as to the number of beds.

Patients are also admitted to Willesden Isolation Hospital at a charge of £3 3s. per week.

Willesden (estimated population, 140,758).—A full description of this recently extended and enlarged hospital was given in last year's report.

In addition to two iron buildings (the original hospital) the hospital consists of the administrative block, two blocks containing four wards each (one of these is the observation block), four blocks containing two wards each, a laundry block, ambulance station, male staff block and discharge block.

The number of beds is as follows:—

Scarlet fever	..	..	56 beds.
Diphtheria	..	..	44 „
Enteric fever	..	..	10 „
Observation wards	..	..	12 „
<hr/>			
Total	..	..	122 beds.
<hr/>			

In addition at least 10 beds can be placed in the iron structure mentioned above.

Wood Green (estimated population, 43,150).—During 1905 this district entered into an agreement with Hornsey for ten years to send cases to the Isolation Hospital of the authority of the last-mentioned district, and accordingly gave up the tenancy of a corrugated iron building which had previously been rented from Stoke Newington for use as a hospital. (*See Hornsey.*)

Hendon (rural) (estimated population, 11,108).—The hospital was opened in 1902, and is situated in Honey Pot Lane. The accommodation is for scarlet fever and diphtheria, there being two ward blocks with two wards each. There is a good administrative block and the hospital is well equipped with laundry, steam disinfecting apparatus and mortuary.

The accommodation can, if necessary, be increased, without lowering the amount of

cubic space per bed below the usually accepted standard, to 18 or 20 beds and cots, but nominally the accommodation is 14 beds.

Cases are also admitted from the district of *Wealdstone* (estimated population, 9,652) by arrangement.

- (b) The districts which now have arrangements for the reception of patients from their respective areas suffering from scarlet fever, diphtheria, or enteric fever into the hospitals provided by other authorities, are :—

Finchley—arrangement with Hornsey (25 beds retained).

Greenford—arrangement with Ealing.

Hampton Wick and Teddington—arrangement with Hampton.

Tottenham—arrangement with Metropolitan Asylums Board (hospital situated in Tottenham area).

Wealdstone—arrangement with Hendon Rural.

Wood Green— ,, ,, Hornsey.

Details as to the arrangements have already been given in connection with the respective hospitals of authorities in the County.

(c) The following authorities have made no provision for the isolation of the ordinary infectious complaints:—

Feltham	..	estimated population	5,281
Friern Barnet		„ „	10,470*
Hanwell	..	„ „	19,428
Kingsbury	..	„ „	800
Staines (urban)		„ „	6,885
Sunbury	..	„ „	4,750
South Mimms	..	„ „	2,784
Staines (rural)	..	„ „	19,919

The number of districts in this class is two less than last year.

In each of the districts of *Kingsbury* and *South Mimms* the population concerned is small, and there appears to be no urgency in the matter.

In the case of *Friern Barnet*, the Medical Officer of Health of the district again repeats his advice as to the necessity of definite provision of some kind being made. During the year 1905 difficulty in getting accommodation for a patient in the hospital of some adjoining authority occurred only once. But as Dr. Spreat remarks, when beds are most required the adjoining districts are likely to be affected with the same infectious disease and to require all their available accommodation for their own residents.

* Exclusive of population in Asylum.

The sanitary authority should therefore take this matter into consideration forthwith.

In the case of *Hanwell*, the urgent need of hospital accommodation was sorely felt during 1905 owing to an outbreak of scarlet fever, and it is pointed out by Dr. Hope in his annual report that this led to much difficulty and unnecessary hardship in the district. Thus in one instance “where “the people were very poor, the mother stated “that she required the bed on which her infected “children were lying for the purposes of her “accouchement, which she expected at any time.” In several instances the father of the family was thrown out of work owing to the presence of infection in his house.

The question of hospital provision in this district is now the subject of correspondence between the County Council and the sanitary authority.

As regards the remaining four districts, viz., *Feltham*, *Staines (urban)*, *Sunbury*, and *Staines (rural)*, they can best be dealt with together. All these districts are in the same Poor Law Union, and as regards population they are small for the purpose of providing hospital accommodation separately, with the exception of the rural district of *Staines*. A joint scheme therefore suggests itself. During 1905 the question has been the subject of correspondence between the County Council and each of the authorities, and although nothing definite has yet been settled, it appears as the result of a conference between representatives of the authorities that they have come to the decision that hospital accommodation is needed. The

County Council is now waiting to hear what action it is proposed to take to supply this recognised need before deciding as to taking action under the Isolation Hospitals Acts.

In the following table is given the total number of cases (as set out in the local reports) removed to hospital. From this it appears that of 4,543 cases notified of scarlet fever, diphtheria, membranous croup, and typhoid, 3,081, or 67 per cent., were removed to hospital:—

Cases removed to Hospital suffering from certain notifiable Infectious Diseases.

District.	NUMBER REMOVED.						NUMBER NOTIFIED.					
	Smallpox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Enteric.	Total, not including Smallpox.	Smallpox.	Scarlet Fever.	Diphtheria.	Membranous Croup.	Enteric.	Total, not including Smallpox.
URBAN.												
Acton ..	1	108	37	2	5	152	1	137	49	2	12	200
Brentford ..	—	61	56	2	—	119	—	67	83	2	6	158
Chiswick ..	—	62	16	—	1	79	—	84	39	1	9	133
Ealing (<i>Borough</i>) ..	—	120	36	—	3	159	—	158	62	—	10	230
Edmonton ..	—	209	19	1	30	259	—	259	35	2	44	340
Enfield ..	—	—	—	—	—	207	1	194	39	—	9	242
Feltham ..	—	—	—	—	1	1	—	10	4	—	2	16
Finchley ..	—	53	17	—	5	75	—	85	32	—	8	125
Friern Barnet ..	—	12	—	—	2	14	—	26	16	—	8	50
Greenford ..	—	1	1	—	—	2	—	1	1	—	—	2
Hampton ..	1	22	28	—	1	52	1	37	36	—	2	75
Hampton Wick ..	—	—	1	—	—	1	—	3	5	—	—	8
Hanwell ..	—	—	—	—	—	—	—	105	17	—	—	122
Harrow ..	—	10	—	—	—	10	—	17	6	—	3	26

[illegible]

(2) SMALLPOX HOSPITAL ACCOMMODATION.

As regards the provision of accommodation for the isolation of cases of smallpox, the most noteworthy fact to be recorded for the year 1905 is completion of negotiations between certain local authorities in the County and the application by them to the Local Government Board, asking to be granted a Provisional Order constituting them into a United District under Section 279 of the Public Health Act for the purpose of a smallpox hospital or hospitals.

A local inquiry was held on behalf of the Local Government Board by Dr. Fletcher, one of the Medical Inspectors, early in the year, and a Provisional Order was made on 13th May, 1905, and afterwards confirmed by Act of Parliament.

As the result of this, a conjoint hospital district for smallpox has been created, known as the "Middlesex Districts Joint Smallpox Hospital District," of which the following are constituent authorities, viz. :—

Acton,	Hanwell,
Brentford,	Harrow,
Chiswick,	Southgate,
Edmonton,	Tottenham,
Enfield,	Wealdstone,
Greenford,	Wood Green.
Hampton Wick,	

The Joint Board is to consist of one *ex-officio* member, in addition to the members elected by the Constituent Authorities, and the former is to be the Chairman for the time being of the General Purposes Committee of the County Council of Middlesex.

By Article 14, the following provision is made as to the mode of admission into the hospital or hospitals provided :—

(1) Persons shall be admitted into a hospital provided by the Joint Board in any of the following modes and not otherwise except with the consent of the Constituent Authorities, that is to say :—

(a) By an order of the Joint Board or of a Constituent Authority ;

(b) By an order of a Medical Officer of Health of a Constituent Authority ;

(c) By an order of a Medical Officer appointed by the Joint Board ; or

(d) By an order of a Justice under the provisions of Section 124 of the Act with the consent required by that Section.

(2) If the Board of Guardians of the Brentford Union, the Edmonton Union, the Hendon Union, or the Kingston Union, and the Joint Board agree for the reception into the hospital of persons suffering from smallpox and in the receipt of relief from that Board of Guardians, any such person may be admitted into the hospital in the manner and on the terms prescribed in the agreement.

Until a hospital is provided, the power vested in the constituent authorities to provide hospital accommodation for cases of smallpox still exists. Most of the above authorities, as well as some others, have already made arrangements by agreement or otherwise to send cases to the smallpox hospital at South Mimms. These were set out in last year's report.

The remaining authorities had also made arrangements for the joint use of other hospital buildings, which with one exception are all situated in the county (*see County Report, 1904*). It does not appear from the local reports that any alteration has been made, although as the result of the formation of the Joint Board referred to above, alteration may occur when this Board has provided its accommodation.

DISINFECTION.

In considering the subject of methods of disinfection after the occurrence of cases of infectious disease, it is necessary to do so in relation to—

- (a) The disinfection of rooms.
- (b) The disinfection of articles of clothing, bedding, &c.

From the information set out in the following table, it will be apparent that as regards the former, it is almost universally the practice in the County to use formalin by means of fumigation or as spray, or to adopt both methods. Where it is found necessary the walls of rooms are stripped and ceilings cleansed.

For the disinfection of articles of clothing most of the district authorities have now provided one or other type of steam disinfecting apparatus. Where the authority possesses an isolation hospital, the apparatus is usually provided in connection with it, and the articles needing disinfection are conveyed there in suitable vans or hand trucks, and after they have undergone disinfection are returned to the owners in separate vans used only for disinfected articles.

Methods of Disinfection in Use.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Acton ..	Sprayed with formalin and then fumigated for six hours with formalin	Steam disinfecting apparatus (Washington Lyon) at Isolation Hospital	Two vans, one for infected, other for disinfected articles.
Brentford ..	No details given as to methods in practice	Steam disinfecting apparatus at Isolation Hospital.	
Chiswick ..	" "	" "	Two transport vans.
Ealing ..	" "	Steam disinfecting apparatus.	
Edmonton ..	Sprayed with formalin (1 in 40)	" "	Two transport vans.
Enfield..	No details ..	" "	
Feltham ..	Spraying and fumigation with formalin	No steam apparatus. Exposed in room during fumigation.	Two transport vans.
Finchley ..	" Walls stripped and cleaned if necessary	Steam disinfecting apparatus (Equifex):	

Methods of Disinfection in Use—continued.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Friern Barnet..	Spraying with formalin and sulphur fumigation. Cleanings if necessary.	Sent to Finchley.	
Greenford ..	Information not given ..	Information not given.	
Hampton ..	Fumigation with formalin, stripping and cleansing where necessary	Steam apparatus at Isolation Hospital.	
Hampton Wick	Fumigation with sulphurous acid gas	No disinfecting apparatus.	
Hanwell ..	Formalin spray	By arrangement with Ealing use of the steam apparatus here is available when not in use.	
Harrow ..	Formalin spray and fumigation	Steam disinfecting apparatus at Hospital.	
Hayes..	Disinfection with formalin	No steam disinfecting apparatus.	

Methods of Disinfection in Use—continued.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Hendon ..	Disinfection with formalin	Steam disinfecting apparatus.	
Heston and Isleworth	No details given as to methods in practice	„ „	
Hornsey ..	„	„	
Kingsbury ..	Formalin spray and fumigation. Cleansing of walls, &c., if necessary	No information given.	
Ruislip- Northwood	Disinfection with formalin	Arrangements made for disinfection in steam apparatus of Hendon Rural District.	
Southall- Norwood	Fumigation with sulphur. Walls, floor, and ceiling are brushed over, and woodwork washed with solution of chloride of lime	Steam disinfecting apparatus at Hospital.	Two transport hand trucks. If case is treated at home the walls of rooms are stripped and scraped.

Methods of Disinfection in Use—continued.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Southgate ..	Formalin spray and fumigation. Walls stripped and rooms washed	Steam disinfecting apparatus at Hospital.	Two transport vans.
Staines (urban) ..	Sulphur fumigation ..	No steam disinfecting apparatus.	
Sunbury ..	Fumigation with formalin	No steam apparatus, sprayed with formalin.	It is hoped that a steam disinfecter will be provided in conjunction with Joint Hospital Board.
Teddington ..	Sprayed with formalin ..	No steam apparatus, sprayed with formalin.	
Tottenham ..	Rooms fumigated, stripped and cleansed.	Steam disinfecting apparatus provided.	
Twickenham ..	Rooms fumigated.. ..	No information.	
Uxbridge ..	Fumigation with formalin, stripping and cleansing where necessary.	No steam disinfecting apparatus	
Wealdstone ..	Formalin spray and sulphur fumigation	Steam disinfecting apparatus with formic aldehyde added.	.

Methods of Disinfection in Use—continued.

District.	Rooms.	Articles of Clothing, Bedding, etc.	Remarks.
Wembley ..	Formalin spray and formalin fumigation	Steam disinfecting apparatus in basement of office	
Willesden ..	Formalin spray	Steam disinfecting apparatus at Hospital	
Wood Green ..	No details given as to methods in practice	Steam disinfecting apparatus.	
Hendon (rural) ..	Formalin spray and formalin fumigation. Floors washed with Pynerozone	Sprayed with formalin and fumigated, or disinfected in steam apparatus at Hospital.	Special bed van.
South Mimms (rural)	Rooms fumigated	No information.	
Staines (rural) ..	Formalin fumigation (Liguer's apparatus)	No steam apparatus.	
Uxbridge (rural)	Sulphur fumigation and after smallpox formalin fumigation as well.	„ „	It is again reported that "a steam disinfectant is badly needed."

It will be gathered from the above that no steam disinfecting apparatus has been provided in several of the districts, and from the information available it is not possible to say that the sanitary authorities of these districts have made arrangements by which this method of disinfecting articles of clothing, bedding, &c., is available for the residents. In connection with this matter I would draw attention to the fact that, under the rules framed by the Central Midwives Board, the following one occurs in connection with the occurrence of puerperal fever in the practice of a certified midwife, or her exposure to infectious disease.

Rule E (5). Whenever a midwife has been in attendance upon a patient suffering from puerperal fever, or from any other illness supposed to be infectious, she must disinfect herself and all her instruments and other appliances, to the satisfaction of the local sanitary authority, and must have her clothing thoroughly disinfected before going to another labour. Unless otherwise directed by the local supervising authority, all washable clothing should be boiled, and other clothing should be sent to be stoved (by the local sanitary authority), and then exposed freely to the open air for several days.

HOUSES.—HOUSING OF THE WORKING CLASSES ACT.

In the sanitary tables given at the end of this report full details will be found set out of the work which was carried out in each district during 1905 as regards dwelling houses, and reference may be made to these for particulars. Apart from the powers possessed by local authorities for dealing with insanitary conditions in existing premises under the nuisance sections of the

Public Health Act, 1875, and the Housing of the Working Classes Acts, urban authorities have under Section 159 of the former Act and Section 23 of the Public Health (Amendment) Act, 1890, to frame by-laws so as to control the conditions under which new houses shall be erected. In last year's report I dealt in detail with this subject, and it is hardly necessary to repeat what I then stated.

In addition to the particulars set out in the tables referred to above, remarks are made in the reports of the medical officers of health and sanitary inspectors to the following effect:—

In the case of Brentford Dr. Bott states that the "housing question" has always been a difficulty owing to proximity to London and the large number of workmen engaged in the work of the town. He thinks the extension of tramways and cheapening of railway communication should induce workmen to go further afield. He also advocates the widening of the High Street because all the old and bad property in the town is in its vicinity, and if the street were widened to 80 feet this property would have to be pulled down.

In the Chiswick report reference is made to two schemes which were mentioned in last year's report. In the case of one of these it is stated that the houses have been thoroughly repaired and are now in a habitable condition. The other scheme, known as Strand on the Green, has not yet been dealt with.

In Edmonton it was decided that, in order to carry out by-law 113, made by the District Council as regards new streets and buildings (which requires that no new

dwelling-house shall be let or occupied until it has been certified after examination by an officer of the Council to be fit for human habitation), the Medical Officer of Health should give this certificate. All new houses were therefore visited by him. Certificates were granted after the first inspection in 234 cases and after a second inspection in 30 cases. In one case a conviction and penalty was obtained against an owner who allowed his houses to be occupied before receiving this certificate.

Closing orders under the Housing of the Working Classes Act were obtained in respect to three houses, and notices were served as regards two which were not fit for human habitation.

In Finchley the inspector reports that owing to failure of an owner of seven houses to carry out requirements of the authority the works were executed by the District Council and the cost recovered.

In the report on Hayes Urban District, Dr. Higginson states that cottage accommodation is rapidly becoming more adequate ; previously such has been much needed.

Dr. Fletcher Little, in his report on Harrow, sets out some suggestions for the amendment of the existing by-laws.

In the report on the district of Heston and Isleworth, Dr. Steegmann directs attention to the advantages of the system now in force whereby before a certificate is given as regards the fitness of a new house for habitation, the

drains are tested by an official of the Public Health Department in conjunction with the Surveyor's Department.

For the newly-created urban district of Ruislip-Northwood new by-laws relating to streets and buildings were being framed.

Dr. Ransome again repeats his remarks as to the necessity of providing suitable dwellings under the Housing of the Working Classes Act, for working men in the district of Southgate.

Dr. Günther in his report on Teddington advises the District Council to consider the question of providing suitable cottage dwellings for the working classes, in view of the fact that available sites are getting scarce and more expensive.

In Tottenham 12 houses were closed as being unfit for human habitation. The estate which is being developed by the London County Council progressed rapidly during the year, and it appears that within eighteen months it is anticipated that houses for an additional five thousand persons will be completed. Other houses are also being erected by the Governors of the Peabody Donation Fund.

In the case of Wealdstone, Dr. Butler draws attention to the bad construction of some of the "flats" in the poorer parts of the district. He especially mentions Canning Villas; these, he states, were the subject of a special report in the previous year, but nothing appears to have yet been done, and he reports that in his opinion, they are not fit for human habitation in their present condition.

OVERCROWDING.—HOUSES-LET-IN-LODGINGS.

The subject of overcrowding can with advantage be considered in connection with that of houses-let-in lodgings, inasmuch as one of the most important reasons for having by-laws specially dealing with this class of premises is to prevent overcrowding.

Further, it will be seen from the comments of the district medical officers of health in their annual reports referred to below that it is suggested by some that in order to deal effectually with overcrowding the enforcement of by-laws as to houses-let-in-lodgings is necessary.

Model by-laws relating to houses-let-in-lodgings have been drawn up by the Local Government Board for the guidance of local authorities, and under Section 8 of the Housing of the Working Classes Act, 1885, every sanitary authority is empowered to make such by-laws. The matters for which by-laws may be made are the following :—

- (a) For fixing and from time to time varying the number of persons who may have a house or part of a house, or part of a house-let-in-lodgings, or occupied by members of more than one family.
- (b) For registration.
- (c) For inspection.
- (d) For enforcing drainage and privy accommodation.
- (e) For promoting cleanliness.
- (f) For precautions against infectious disease.

Under the first clause a minimum amount of cubic space per head can be required, and in the model by-laws the amount suggested is—

300 cubic feet per head in sleeping rooms, and
400 cubic feet per head in rooms used both as sleeping
and living rooms.

For children under 10 only half of the above amounts are required.

The model by-laws also contain a clause by which it is possible for a local authority to exclude certain classes of houses in the district from the operation of any by-laws which they may make.

Finally the model by-laws, contain a clause making an offence against the by-laws liable to a fine not exceeding £5, with a further daily penalty, after written notice, of forty shillings.

This is an advantage as compared with legal procedure under the nuisance section of the Public Health Act, 1875, where it is necessary in the first instance to serve an order for the abatement of the nuisance within a certain time.

In the County of Middlesex, from the information available in the reports I find that the following 16 authorities have made by-laws as to houses-let-in-lodgings:—

Acton.	Southall-Norwood.
Chiswick.	Southgate.
Edmonton.	Staines (urban).
Enfield.	Tottenham.
Finchley.	Twickenham.
Hanwell.	Wealdstone.
Heston and Isleworth.	Wembley.
Hornsey.	Willesden.

As regards the districts of Hampton, Hendon (urban), Sunbury, Teddington, Uxbridge (urban), Wood Green, and Ruislip-Northwood, no by-laws have yet been made, whilst as regards the remaining the information is insufficient to say whether or not such by-laws exist.

In the case of Uxbridge (urban) the medical officer recommended his authority to adopt the by-laws, but this was not acted upon. In the report on Ruislip-Northwood Dr. Hignett recommends that they should be made, and the sanitary inspector of Wood Green also makes the same recommendation.

As regards the enforcement of the by-laws it appears that the number of houses registered is as follows:—

Chiswick, 59 ;	Southall-Norwood, 16 ;
Heston & Isleworth, 2 ;	Tottenham, 40.

In the case of Acton a register is now being compiled.

The total number of instances of overcrowding recorded is 234. These will be found set out in the tables relating to sanitary work at the end of the report.

This is an increase upon the number noted in 1904, namely, 169, but this may be due to the fact that the sanitary tables have been more completely filled up this year.

Dr. Bott of Brentford refers to the difficulty of detecting cases of overcrowding in flats and suggests that all houses where lodgers are taken should be registered, but it is not clear whether by-laws have yet been adopted.

Dr. Butler-Hogan reports as regards Tottenham that most of the cases of overcrowding occurred in tenement lodging houses occupied by foreigners. He made several night visits to suspected houses and found overcrowding in five instances.

In connection with overcrowding in the rural district of Hendon, Dr. Campbell Gowan refers to the need of proper cottage accommodation, and to the “absolute impossibility, in fact, of obtaining it.”

COMMON LODGING-HOUSES.

From the returns made in the sanitary tables it appears that in 1905 there were 31 registered common lodging-houses as compared with 46 in 1904. The decrease is due to the fact that there are none now in Wembley or Hendon (rural) districts.

The particulars given regarding these are :—

District.	No.	Contraventions.
Acton	2	.. —
Brentford	7	.. —
Edmonton	1	.. —
Harrow.. .. .	1	.. 6
Heston and Isleworth ..	2	.. 2
Staines (urban)	1	.. —
Tottenham	4	.. —
Uxbridge (urban)	13	.. 8

MOVABLE DWELLINGS, CARAVANS, &c.

As in previous years, many of the reports of the local medical officers contain reference to the annoyance and nuisance which are caused by dwellers in vans, tents, and other forms of movable dwellings, and to the difficulty in dealing with these people owing to the inadequacy of the powers which exist.

In the case of Middlesex a nomad population of this class, from the nature of things, is specially liable to be the source of annoyance and of nuisance to the permanent inhabitants. The reason for this is the proximity of the County to the Metropolis, and the rapid development of land for building purposes, which is taking place over the greater part of the area. One of the results of this development is that large plots of ground are planned out and set apart for building. Houses are then erected by different persons on various parts of the site, but the whole estate is not built upon at once, and it is no uncommon thing to find scattered groups of houses with intervening open ground which is not fenced in, and which is awaiting the erection of houses. On land such as this it frequently happens that vans are drawn up, and that squatters come and pitch tents of a primitive character without the knowledge or leave of the owners. Being in close proximity to occupied houses, they become a source of annoyance by their habits of begging for water, &c., from the residents, whom they do not hesitate to abuse and to threaten if their requests are refused. Further, owing to the fact that the land is not intended for such use and that there are no fixed sanitary conveniences, these persons become polluters of the soil and ditches. In other parts of the County which as yet retain more rural conditions than those mentioned above, these people have been known to trespass on private ground, to cause much annoyance by their destructive habits, to put their horses out to graze and to steal.

During recent years applications have been frequently received by the County Council from District Councils (the last from the District Council of Edmonton in 1904)

asking that by-laws for the good rule and government of the County might be made for the purpose of dealing, in their respective districts, with gipsy encampments and squatters. Such by-laws have already been made and approved by the Home Office for the following districts:—

Acton..	..	1893	Tottenham	..	1894
Hendon (urban)		1893	Twickenham	..	1893
Southgate	..	1893	Wood Green	..	1893
Teddington	..	1890	Staines (rural)	..	1893

These by-laws were to the effect that no owner should allow any land within 100 yards of a street or dwelling house to be used by any van dweller, squatter, &c., and that no such person should use as a dwelling place any land within 100 yards of a street or dwelling house, so as to cause annoyance, injury or disturbance, to the residents.

The Home Office, however, declined, after 1896, to approve by-laws to the above effect in regard to any other district in the County.

The action which can be taken under the nuisance section of the Public Health Act involves considerable delay and appears to be of little use in dealing with the matter as, by the time any effectual proceedings can be instituted the offenders move away only to be replaced by others, necessitating a repetition of the process, or the original offenders return after the summons has lapsed. Further, these powers only relate to nuisance of a sanitary nature.

It is, of course, competent for District Councils to frame by-laws under Section 9 of the Housing of the Working Classes Act, which have for their object the maintenance of cleanliness in, the prevention of the spread of infectious

disease in, and the prevention of the occurrence of nuisance in connection with movable dwellings. But these again do not appear to have been regarded as sufficient to cope with the annoyance caused by this vagrant class and, from such information as I have obtained, by-laws under this Act have only been adopted by the Districts of Enfield, Heston and Isleworth, Southall-Norwood, Tottenham and Wembley.

The County Council decided to apply to Parliament, in a General Powers Bill to be promoted during the Session 1906, for power to put into force in such districts as asked for them provisions similar to those referred to above as already being in force in certain districts in the form of by-laws.

I find in the reports for 1905 that a total of 1,833 movable dwellings came under the observation of the public health officials, 1,072 of which are recorded in the case of Edmonton, where much time was absorbed in dealing with the matter. Of the total, 636 were removed from the various districts and 154 nuisances were abated.

The numbers relating to each district are given in the sanitary tables at the end of this report.

CANAL BOATS USED AS DWELLINGS.

In 10 of the reports, or the sanitary tables attached to them, reference is made as to inspection of these boats, as compared with 7 last year.

Briefly the details may be summarised as follows:—

Brentford.—This is a registration authority, and one application for a certificate was received and

granted during 1905. There are now 304 boats on the register. Inspection was made of 106 boats, and 2 contraventions were found and remedied on notice being served. There were no cases of infectious disease.

Edmonton.—In this district 63 boats were visited by the inspector and 5 contraventions were dealt with.

Hampton.—Inspections 10, contraventions 3.

Hanwell.—Visits, 40 in number were made by the inspector to 26 boats, and 11 infringements of the Acts or Regulations were found, but for the most part the boats were in a satisfactory condition. The boats inspected were registered as having accommodation for 104 adults and 67 children, but only 65 adults and 43 children were found. There were no cases of infectious disease.

Heston and Isleworth.—The canal boat inspector in this district visited 287 boats and found 43 infringements in 33 boats. These had, with a few exceptions, been all remedied by the end of the year. The total population for which these boats were registered was 1,028, and the occupants numbered 711. It is stated that there is urgent need for sanitary accommodation for the women and children whilst the boats are stopping in the district. There were no cases of infectious disease.

Southall-Norwood.—Inspection was made of 85 boats and 7 infringements of the Acts or Regulations were dealt with. It is reported that the cabins were found to be kept in a very cleanly condition, and it is also found that there is marked improvement in the cleanliness of those living in the boats.

Uxbridge (urban).—In the sanitary table, 274 boats are recorded and 11 infringements.

Wembley.—One infringement is reported.

Willesden.—Seventeen infringements are reported.

WATER SUPPLY.

The whole area of the County, except some of the outlying parts of rural districts, is now provided with water from one or other public water supply, and I find from the returns made by medical officers of health in the sanitary tables which I send out for the purpose of the annual reports, that in the case of each of 26 districts the number of houses obtaining water from the public mains is over 90 per cent. of the whole, and in most of these the percentage is given as 99 or 100. As regards the remaining districts it is reported that in Feltham 75 per cent., in Hayes 80 per cent., in Ruislip-Northwood 80 per cent., and in Uxbridge (rural) 70 per cent. of the houses have a public water supply, whilst in the case of 6 districts information is not given.

New wells were sunk in three districts, viz., 4 in Staines (urban), 2 in Sunbury, and 19 in Staines (rural). These were probably deep wells in connection with water works.

Wells were cleaned and repaired in 29 instances.

In the following districts a total of 47 wells are reported as having been closed owing to the water being found to be polluted :—

Ealing ..	1	Southall-Norwood	1
Feltham ..	8	Southgate ..	2
Finchley ..	1	Sunbury ..	2
Heston and		Teddington ..	1
Isleworth..	2	Twickenham ..	1
Hornsey ..	4	Wembley ..	1
Ruislip-		Staines (rural) ..	18
Northwood	4	Uxbridge (rural)	1

I was consulted towards the end of the year by the medical officer of one district as to a small outbreak of diphtheria, and visited several houses with him in connection with the matter. At one of these, which was in a very insanitary condition, I found the shallow well in a defective condition and considerable indication that the water was exposed to surface and subsoil contamination. As the result of chemical analysis my opinion was confirmed, and at a subsequent date the well was closed and a public water supply laid on.

It will be seen in the sanitary tables at the end of this report that in the majority of the districts from 80 to 100 per cent. of the houses are supplied on the constant system, and from the record of houses supplied during the year with draw taps direct from the mains it appears that the number of houses so circumstanced is gradually increasing.

The more noteworthy references in the reports are the following :—

Dr. Hignett, writing as to a public well in the centre of Ruislip village from which the majority of the inhabitants fetch water, states that as the result

of failure in the pumping apparatus the well was opened. He found that it was a deep one sunk into the chalk, and on having a sample of water analysed it was found to be of good quality.

In the case of the rural district of Staines Dr. Morris reports that—

“For years past the water supply in that part
“of the parish of Stanwell known as Poyle, a
“hamlet situated closer to Colnbrook than to the
“village of Stanwell, has been of very questionable
“purity, and endeavours have been made from time to
“time to get the mains extended to this region. The
“guarantee required by the South-West Suburban
“Company on the outlay requisite is apparently so
“prohibitive that the Slough Water Company, which
“delivers up to the Bucks bridge, have been
“approached in this matter. Whether the two rival
“Companies will agree, and whether you will see
“your way to give the requisite guarantee has not
“yet been settled. As large works for the manufacture
“of smokeless gunpowder are about to be erected in
“this particular region, it may make all the difference
“as to the amount required to carry out this most
“desirable improvement.”

SEWERAGE AND SEWAGE DISPOSAL.

In the report for 1904, I gave a detailed account of the methods adopted in the various districts, so it will not be necessary to repeat this in detail, but merely to give a summary of the matter and to refer to any changes or alterations which may have been effected. The report of 1904 should be referred to. As regards the sewerage

systems, from the information available it appears that in the following districts separate systems of sewers for sewage and for surface water exist.

Acton.	Ruislip-Northwood.
Brentford.	Southgate.
Edmonton.	Teddington.
Finchley.	Tottenham.
Friern Barnet.	Wood Green.
Hampton Wick.	

The methods adopted for dealing with the sewage at the various outfall works consist of chemical precipitation with or without land treatment, land treatment alone, and treatment by filtration in specially constructed filters, which are worked in some cases as contact filters in others as continuous filters. In the case of Hampton Wick, the sewage is conveyed to the Kingston-on-Thames sewage works.

All the *urban* districts in the county are provided with a completed system of main sewers and sewage works, except Feltham, Hayes, and Greenford.

In the case of Feltham, the need for a main drainage system has been felt and formed the subject of correspondence between the County Council and the newly constituted District Council. Soon after the latter body was elected the matter came under their consideration. On the instruction of the Committee I visited the district and made inspections, together with the local Medical Officer and the Surveyor, and found that steps were about to be taken to clean out a pond on the Green into which sewage matter discharged after passing through a filtering chamber. This was done, and Dr. Morris reports that it

was carried out with the least possible nuisance and has resulted in considerable improvement. The Surveyor has been instructed to report on the question of a scheme for the sewerage of the district, and there is little doubt that this will in due course be put in hand by the District Council.

In the case of Hayes, a scheme for the sewerage of the district was already being carried out whilst the district formed part of the rural district of Uxbridge, but was not completed at the date when Hayes became a separate district. During the year an inquiry was held by the Local Government Board in connection with an application for a further loan which it was found necessary to raise in order that the works might be finished. At the present time the sewage is disposed of by cesspools, privies, and pail closets.

In Greenford, which is still but sparsely built on, sewerage disposal is by means of cesspools and pail closets. A complaint as regards the arrangements existing at certain cottages was made to the County Council. I visited the district and investigated the matter in conjunction with the local Medical Officer of Health and the Surveyor, and certain suggestions were then made by the Council, with the result that improvement was effected.

As regards the *rural* districts, all the parishes in Hendon and the populated parts of South Mimms, are provided with systems of sewerage, and the majority of the houses, except outlying premises, are connected with them.

No remark is made as to any sewerage works executed during the year in the rural district of Uxbridge.

In the rural district of Staines no main sewerage systems exist, but a small scheme for sewage disposal appears to exist for each of the villages of Harmondsworth and of Sipson respectively. The latter was only recently executed, and Dr. Morris states that great difficulties had to be overcome and that the scheme is not effective.

During 1905, under the Acton Improvement Act, powers were obtained by which all the sewage of Acton will pass into the sewers of the London County Council as soon as the necessary works are completed. The alterations required have to be finished within five years, but it is anticipated that the new sewers will be ready before this.

Dr. Günther, in his report on Hampton Wick, states that the surface water sewers are now completed except for one section.

In the case of Harrow, Mr. Bennetts, the Surveyor reports that a few of the samples of effluent from Newton sewage works have not been up to the mark, but the addition of extra land will, it is hoped, improve matters.

The Urban District Council of Hendon obtained a loan during the year for constructing additional bacterial filters.

Dr. Hignett, the Medical Officer of the newly created district of Ruislip-Northwood, gives an account of the sewerage and sewage works. The former is on the dual system, and consists of two parts: (1) for that part of the district known as Northwood; (2) for Eastcote and Ruislip villages. In the former the sewage falls by gravitation to the sewage works; in the latter it gravitates to a station at Eastcote, whence it is pumped through a 4 inch main to a point near Ruislip, and then flows to the works. At the works the sewage passes into sedimentation tanks, thence on to contact beds, and then over irrigation areas. The sludge from the tanks is dried and sold to farmers.

Improvements in the contact beds and irrigation areas are under consideration.

As regards the sewage works of Staines (urban), Dr. Tothill makes the suggestion that it is “desirable to increase the area of the filter beds and so obviate the necessity of using land filtration when there is an extra amount of sewage to be dealt with.”

At Sunbury Dr. Palgrave states, “a new rising main and air main is being laid from Sunbury Common to the sewage works; this will have the effect of making the sewage of Sunbury Common independent of the Nursery Road Station.”

In the Tottenham report, Dr. Butler-Hogan gives a detailed account of the new extension works which were opened during 1905. The sewerage of the district of Wood Green and Tottenham is under a Joint Committee and eventually joins with the sewers of the London County Council, which convey sewage to the northern outfall station at Barking.

In the new works special provision is made for storing in times of storm, and to meet very heavy rainfall there is an overflow to the River Lea, but even under these conditions the usual method of dealing with the overflow is to empty it by a 24-inch pipe into the sludge well. Before any storm water is passed into the River Lea it is treated with lime. The loan sanctioned by the Local Government Board for the erection of the new works was £43,800.

DAIRIES, COWSHEDS, AND MILKSHOPS.

In the report for the year 1904, I reviewed at some length this subject and referred to the interim report issued by the Royal Commission appointed to inquire into

the relations of human and animal tuberculosis, and the bearing which this had, from an administrative point of view, as to the action which might be taken by District Councils under the amending Dairies, Cowsheds, and Milkshops Order of 1899, to ascertain the existence of milch cows in their districts affected with tuberculous disease of the udder, more especially in view of the circular letter of the Local Government Board, dated March 11th, 1899, to District Councils.

Although it does not relate to the year under review, I may state that early in 1906, under an instruction of the General Purposes Committee, I addressed a circular letter to each medical officer of health, asking them what action had been taken for the purposes of examination by a veterinary surgeon of milch cows with a view to detecting such disease. Information on this matter is not yet complete, but it appears to me that action in this direction could be much more economically and effectively taken if it were done by one central authority, somewhat in the manner in which it is already done in the neighbouring County of London, than if left to a large number of smaller authorities, in none of whose districts are the milch cows so great in number as to justify the appointment of a veterinary inspector specially for the purpose.

In the following table I have set out the number of cowsheds, dairies, and milkshops, date of the regulations which are in force, and the number of contraventions so far as these are recorded in the sanitary tables. An approximate number of the cows in each district so far as I have been able to get this from the medical officers is also given. The last-mentioned information was obtained after the end of 1905.

TABLE 11.—Dairies, Cowsheds, and Milkshops.

District.	No of Cowsheds registered.	No. of Cows.	No. of Dairies and Milkshops registered.	Date of Regulations in force.	Contraventions of Regulations.	
					Cowsheds.	Dairies and Milkshops.
<i>Urban.</i>						
Acton ..	3	100	43	1890	—	—
Brentford ..	3	—	46	1890	—	—
Chiswick ..	2	6	28	1900	—	2
Ealing (<i>Borough</i>) ..	8	120	34	1903	—	—
Edmonton ..	4	54	60	1899	—	—
Enfield ..	32	386	76	1900	15	27
Feltham ..	—	—	2	—	—	3
Finchley ..	10	227	21	1900	1	—
Friern Barnet ..	5	—	14	—	—	1
Greenford ..	—	—	7	—	—	—
Hampton ..	8	130	5	1905	5	—
Hampton Wick ..	1	10	2	1896	1	—
Hanwell ..	4	50	15	1904	—	—
Harrow ..	10	—	5	1899	3	1
Hayes ..	3	300	3	—	—	—
Hendon ..	21	—	24	1889	13	7
Heston and Isleworth ..	19	—	51	1900	7	9
Hornsey (<i>Borough</i>) ..	3	45	70	1899	—	25

Kingsbury ..	..	1	—	1	1901	1	—
Ruislip-Northwood ..	..	14	186	1	1905	1	—
Southall-Norwood ..	..	7	—	1	1899	1	1
Southgate ..	..	10	130	—	1889	—	—
Staines ..	..	11	80	—	—	—	—
Sunbury ..	..	7	95	5	no regulations	—	—
Teddington ..	..	9	48	19	1888	16	2
Tottenham ..	..	21	—	216	1900	3	—
Twickenham ..	..	6	120	46	1897	—	—
Uxbridge ..	..	12	—	10	1901	—	—
Wealdstone ..	..	4	—	10	1897	—	—
Wembley ..	..	11	250	12	1905	1	—
Willesden ..	..	6	115	125	1889	5	31
Wood Green ..	..	4	18	43	1891	1	—
<i>Rural.</i>							
Hendon ..	..	21	—	11	1899	10	1
South Mimms ..	..	6	—	—	—	—	—
Staines ..	..	35	301	13	1888	—	—
Uxbridge ..	..	27	419	23	1888	—	—
The County ..	..	338	—	1,084	—	—	—

SLAUGHTER-HOUSES.

In the sanitary tables supplied to each district by the County Council and attached to the annual reports of the medical officers of health, a total of 208 premises registered for the slaughtering of animals is given. In the tables relating to Greenford, Kingsbury, Staines (rural) and Uxbridge (rural), no slaughter-house is recorded. In the case of Staines (rural) Dr. Morris stated in 1904, as regards slaughter-houses: "These are not registered and are only inspected occasionally." No reference is made this year, and presumably no improvement in this respect has yet been effected.

Contraventions of the by-laws as to slaughter-houses are noted in 52 instances.

In the report on Wembley, by Dr. Goddard, it is stated that no by-laws are in force. The number of slaughter-houses here is six.

Details as to the number in each district will be found in the sanitary tables at the end of this report.

Some time back I obtained from the local medical officers of health copies of the various by-laws in force in their respective districts, and from these I find that in the following districts such by-laws have been adopted and are in force.

				If By-laws adopted.	Date of By-laws now in force.	Number of Slaughter- houses.
<i>Urban.</i>						
Acton	..	..	..	Yes	1899	4
Brentford	..	..	..	Yes	—	7
Chiswick	..	..	..	Yes	1889	7
Ealing (<i>Borough</i>)	..	..	..	Yes	1884	5
Edmonton	..	..	..	Yes	1904	6
Enfield	..	..	..	Yes	1887	16
Feltham	..	..	..	—	—	3
Finchley	..	..	..	Yes	1879	11
Friern Barnet	..	..	..	—	—	2
Greenford	..	..	..	—	—	—
Hampton	..	..	..	—	—	5
Hampton Wick	..	..	..	—	—	1
Hanwell	..	..	..	Yes	—	4
Harrow	..	..	..	Yes	1902	7
Hayes	..	..	..	—	—	3
Hendon	..	..	..	Yes	1881	8
Heston & Isleworth	..	..	..	Yes	1887	14
Hornsey (<i>Borough</i>)	..	..	..	Yes	1880	10
Kingsbury	..	..	..	—	—	—
Ruislip-Northwood	..	..	..	Yes	1904	3
Southall-Norwood	..	..	..	Yes	1892	6
Southgate	..	..	..	Yes	1877	8
Staines	..	..	..	Yes	—	3
Sunbury	..	..	..	—	—	2
Teddington*	..	..	..	—	—	6
Tottenham	..	..	..	Yes	1887	17
Twickenham	..	..	..	Yes	1877	10
Uxbridge	..	..	..	Yes	1887	6
Wealdstone	..	..	..	Yes	1896	3
Wembley	..	..	..	No	—	6
Willesden	..	..	..	Yes	1900	9
Wood Green	..	..	..	Yes	1891	5
<i>Rural.</i>						
Hendon	..	..	..	Yes	1903	9
South Mimms	..	..	..	—	—	2
Staines	..	..	..	—	—	—
Uxbridge	..	..	..	—	—	—

* In the case of Teddington it would appear that by-laws approved by the Home Office in 1867 are in force.

As regards those districts against which no entry is made information is wanting.

In the case of Acton the District Council obtained powers in the Acton Improvement Act, 1904, by which they can by agreement acquire, or abolish slaughtering in, slaughter-houses in the district and provide adequate slaughter-houses themselves. The sections are as follows :—

Acton Improvement Act, 1904.

Section 117 (1). At any time after the passing of this Act the Council may—

- (a) Acquire by agreement any premises within the district used for the purpose of slaughtering cattle (hereinafter referred to as a “slaughter-house”) and the interest or interests of any owner, lessee and occupier of such premises ;
 - (b) Agree with the owner, lessee and occupier of any slaughter-house for the abolition of slaughtering therein on such terms and conditions as may be arranged between the parties.
- (2) At any time after the expiration of three years from the passing of this Act, and after the Council have provided adequate slaughter-houses in convenient positions (to the satisfaction of the Local Government Board), and after the expiration of six calendar months from the date of publication by the Council in two local newspapers circulating in the district of notice to that effect, no person shall slaughter, in the way of trade, any cattle within the district except in slaughter-houses provided by the Council, but this shall not

apply to the slaughtering on premises by the owner, lessee or occupier thereof of any cattle belonging to him and not slaughtered for the purpose of trade or by a farmer or agricultural occupier on his premises. If any person acts in contravention of this section he shall be liable for each offence to a penalty not exceeding five pounds.

- (3) The Council shall pay compensation to the owner, lessee and occupier of every slaughter-house who may be injuriously affected by the exercise of the above powers, and the amount of such compensation shall, in case of difference, be settled as cases of disputed compensation are settled, under the Lands Clauses Acts, and the provisions of those Acts shall apply accordingly.
- (4) The fees and charges to be demanded and received by the Council in respect of the use of any slaughter-house provided by them, or of any convenience connected therewith, shall be regulated by by-laws to be approved by the Local Government Board, and the Council may make by-laws accordingly. Provided that the Council shall have power to charge for any slaughter-house let at a weekly, monthly or other rent such sum as may be agreed upon by the Council and the renters.
- (5) Nothing in this section shall interfere with the operation or effect of the Diseases of Animals Act, 1894, or of any order or licence of the Board of Agriculture and Fisheries made or granted thereunder.

Section 118. It shall not be lawful to blow or inflate the carcase, or any part of the carcase, of any animal slaughtered within or brought within the district, and any person offending against this enactment, or exposing or depositing for sale within the district a carcase blown or inflated, or any part thereof shall be liable to a penalty not exceeding twenty shillings

Mr. Kinch, the Sanitary Inspector of Acton, states that with one exception the slaughter-houses were always found in a satisfactory condition. In one constant supervision was necessary. He specially reported to the district council on the difficulty of making systematic inspection of carcasses in the slaughter-houses, owing to the varying hours at which slaughtering takes place, sometimes as late as 10 p.m., and to the fact that in two instances it is carried on at various times on Sundays.

He suggests that a by-law prescribing the hours of slaughtering would be of assistance.

In Brentford one slaughter-house was pulled down during the year.

Mr. Clarke, the Chief Sanitary Inspector of Chiswick, reports in a satisfactory sense as to the slaughter-houses.

Mr. Butland, the Inspector for Edmonton, states:

“The number of slaughter-houses remains the same
“as last year, viz., six, four being registered from
“year to year under the Public Health Acts Amend-
“ment Act, 1890, the other two being of old registra-
“tion. Two are of modern construction.”

Dr. Fletcher Little, in his report on Harrow, states :

“ So long as the present system of private slaughter-houses continues it is quite impossible to carry out the inspection of meat effectually, and I recommend the Council again to consider the desirability of erecting a public slaughter-house.”

Dr. Steegmann refers to the fact that in his report for 1904, the question of providing a public slaughter-house was discussed, and he now states :

“ A very important step has been taken in the adoption by the Council of the principle of not allowing any more private slaughter-houses to be established in the district.”

Dr. Butler-Hogan, in his report on Tottenham, again advises the provision of a public slaughter-house, with a view to efficient inspection of the meat supply.

Dr. Butler of Willesden also points out the impossibility of inspection except in a central abattoir provided for the district.

OFFENSIVE TRADES.

In the report of last year I stated “ there appear to be but few of this class of premises in the County, as only 6 such are noted in the returns, namely, 1 in Greenford, 1 in Hampton, 2 in Heston and Isleworth, 1 in Staines (urban), and 1 in Wembley.”

This year returns are made as follows:—Acton 2, Brentford 1, Greenford 1, Hampton 1, Staines (urban) 1, Uxbridge (urban) 1, Wembley 1, Uxbridge (rural) 2. It

appears from this that one set of premises, namely, in Heston and Isleworth, is no longer in use for the purpose of an offensive trade.

In regard to the premises at Greenford, their condition was the subject of proceedings by the District Council. I was asked to inspect them with the local medical officer, and visited them on two occasions. The premises were not originally built for such a purpose and were not well adapted for the business. Dr. Hope reports that many structural alterations were carried out and the business, he believes, will shortly come to an end owing to the termination of the lease, and the probability that the owner will not let the premises for such a business.

On another occasion I was requested by the Medical Officer of Health of Twickenham to visit with him and to advise as to a set of premises in which there was reason to think that a business which might come within the definition of an offensive trade was being established. The work carried on, we found, was of an experimental character and was afterwards discontinued.

Four contraventions of the regulations are recorded as having occurred during the year.

HOUSE REFUSE COLLECTION AND DISPOSAL.

(a) *Collection.*—In the majority of the districts a weekly collection of house refuse has been arranged for.

In the case of Feltham it is stated that house refuse is collected three days a week.

In Hornsey, in addition to the weekly collection, a bi-weekly collection is made at tenements and flats.

As regards the daily collection instituted in Teddington, Dr. Günther writes:—

“The daily collection of house refuse has continued
“to give, I believe, general satisfaction, whilst the
“rearrangement of the rounds of the scavengers so
“that the work of collection is completed by mid-day
“has removed one source of objection to the scheme.
“In a few exceptional instances, where the houses are
“some distance from the road, the servants objected
“to carry the dust-bin to the edge of the kerb of the
“road. In these cases your Council consented to a
“weekly collection and the collectors received
“instructions to fetch the refuse from the houses.”

In Uxbridge (urban), Uxbridge (rural), and Wealdstone, a fortnightly collection is made, but in the last named district a weekly collection is made during the summer.

In Staines (rural), a weekly collection is made in Ashford and Hanworth.

(b) *Disposal of house refuse*.—In last year's report I wrote:—

“As regards the *disposal* of the refuse when
“collected it is still largely the practice to deposit it
“in ‘shoots,’ which in many instances consist of
“disused gravel pits. This method of disposal is
“rightly criticised by the medical officers of health
“as undesirable, and recommendation is made that
“the question of providing dust destructors for the
“districts should be considered. There can be no
“doubt, in view of the rapid extension in the
“erection of houses which is taking place in
“Middlesex, that this matter should be dealt with
“by the various authorities.”

In some districts dust destructors have now been erected, are in course of erection, or it has been decided by the District Council to erect one. This applies to the following districts :—

Acton.	Southgate.
Brentford.	Southall-Norwood.
Chiswick.	Tottenham.
Heston & Isleworth.	Twickenham.
Wood Green.	

In the case of several other districts the advisability of erecting a dust destructor is recommended by the respective medical officers of health.

MORTUARY ACCOMMODATION.

In the following districts mortuary accommodation has been provided :—

Acton.	Southgate.
Brentford.	Staines (urban).
Chiswick.	Sunbury.
Ealing.	Teddington.
Edmonton.	Tottenham.
Finchley.	Twickenham.
*Friern Barnet.	Uxbridge (urban).
Hampton.	Wealdstone.
Hampton Wick.	Wembley.
Harrow.	Willesden.
Hendon (urban).	Wood Green.
Heston & Isleworth.	
Hornsey.	†Hendon (rural).
Southall-Norwood.	‡Staines (rural).

* Friern Barnet District Council has made arrangements for the use of Finchley mortuary.

† In the Hendon Rural District a mortuary has been provided at Pinner.

‡ Shepperton Parish has made arrangements for the use of Sunbury mortuary.

In Feltham there is no mortuary accommodation, but it is stated that provision has been made in certain plans of a new depôt and fire station for this purpose.

Dr. Andrew, in his report on Hendon (urban), states the present iron building, which has accommodation for one body only, has been in use for 20 years, and trusts that the district council will erect a brick structure in the near future.

A public mortuary has now been provided in Uxbridge Urban District.

At Wood Green the mortuary is a temporary one.

Dr. Morris again points out in his report on Staines Rural District that Harlington, Harmondsworth, Bedfont and Cranford require mortuary accommodation.

It is stated that there is no mortuary in Uxbridge Rural District.

FACTORY AND WORKSHOP ACT.

The work which has been carried out in connection with the administration of the Factory and Workshop Act by sanitary authorities in the County during 1905, is summarized, as far as possible, in the following table. This table has been compiled from a more detailed form issued by the Secretary of State for Home Affairs to district medical officers with a view to "uniformity in the presentation of such particulars as lend themselves to statistical treatment."

Under Section 132 of the Factory and Workshop Act, 1901, each medical officer of health is required to report specifically on the administration of the Act in workshops and workplaces in his district, and to send a copy to the Secretary of State.

The majority of the reports contain a copy of the table with the particulars required.

COUNTY OF MIDDLESEX.—*Factory and Workshop Act.*

District.	No. of Workshops on Register.	Total inspections of Factories, Workshops and Homeworkers' premises.	Defects.	Prosecutions.	Underground Bakehouses in use.	If Sec. 22 P.H.A.A. Act, 1890, adopted.
<i>Urban.</i>						
Acton ..	375	271	40	—	8	Yes.
*Brentford ..	66	—	34	—	—	—
Chiswick ..	206	305	23	—	4	—
Ealing (<i>Borough</i>) ..	205	392	37	—	7	—
Edmonton ..	178	299	20	—	1	Yes.
*Enfield ..	151	—	32	—	—	Yes.
Feltham ..	—	4	—	—	—	—
Finchley ..	136	234	68	—	3	—
Friern Barnet ..	29	69	3	—	1	—
*Greerford ..	—	—	—	—	—	—
Hampton ..	33	95	24	—	—	Yes.
Hampton Wick ..	7	34	—	—	—	—
Hanwell ..	54	149	10	—	4	Yes.
Harrow ..	23	110	10	—	3	—
Hayes ..	9	16	1	—	—	—
*Hendon ..	144	—	12	—	—	—

Heston & Isleworth	255	421	125	—	—	1	—
Hornsey (<i>Borough</i>)	297	679	214	—	—	6	Yes.
*Kingsbury ..	2	—	2	—	—	—	—
Ruislip-Northwood	12	36	3	—	—	1	—
Southall-Norwood ..	51	220	5	—	—	1	Yes.
Southgate ..	66	121	38	—	—	—	Yes.
Staines ..	86	10	5	—	—	—	—
*Sunbury ..	3	—	—	—	—	—	—
Teddington ..	7	62	5	—	—	1	—
Tottenham ..	539	1,242	64	—	—	8	—
Twickenham ..	151	512	44	—	—	1	—
Uxbridge ..	44	101	13	—	—	1	—
Wealdstone ..	34	74	2	—	—	—	—
Wembley ..	13	16	—	—	—	3	—
Willesden ..	446	957	212	—	—	25	Yes.
Wood Green ..	163	365	13	—	—	1	Yes.
<i>Rural.</i>							
Hendon ..	16	45	9	—	—	—	Yes.
South Mimms ..	—	—	—	—	—	—	—
Staines ..	—	8	—	—	—	—	—
Uxbridge ..	35	26	1	—	—	1	—

* The Home Office Form for these districts was not sent to the County Council.

FOOD AND DRUGS ACTS.

In connection with the administration of these Acts by the County Council during 1905, the fact most worthy of note is the marked increase which occurred in the number of samples of milk containing preservatives. This necessitated vigorous action on the part of the Council, and in the cases in which proceedings were taken I gave medical evidence in support of the danger to the public health, more especially having in mind that cows' milk forms a large portion of and often the sole diet of infants and invalids.

Owing to the increase which was noticed in the use of preservatives in milk, Mr. Bevan, the County Analyst, and myself, regarded it a matter of importance to report specially on the subject to the Council in a report dated November, 1905. In this we report to the following effect :—

“ Our reason for drawing the attention of the Council to the question is that during the last few years there has been a large increase in the number of the samples of milk taken in the County which have been found on analysis to contain borax or boracic acid in such quantities as to render them injurious to health.

“ The following figures* do not refer to samples containing only minute quantities :—

In 1900	..	..	One sample
In 1901	..	..	None
In 1902	.	..	None
In 1903	..	..	One sample
In 1904	..	..	Five samples
In 1905	..	..	Twelve samples

* The figures for 1905 have been altered so as to relate to the whole year.

“This rapid increase in the number of preservatised samples is in our opinion alarming, and calls for immediate action.

“Fortunately in the cases which have been heard before the Middlesex Justices, the action of the prosecution has been endorsed by the imposition of more or less substantial fines.

“But this satisfactory result has not been obtained without considerable opposition. One of the chief arguments used by defending solicitors is the fact that though the report of the Departmental Committee was issued in 1901, yet no legislative effect has been given to the recommendations, although we understand that effect can be given, so far as relates to milk or cream, by an Order of the Board of Agriculture as provided for by Section 4 of the Sale of Food and Drugs Act, 1899.”

In our report we thought it well to quote from the report of the Departmental Committee which had in 1899 inquired into the question of the use of preservatives and colouring matter in food, and we set out the following conclusions which this Committee had arrived at after receiving considerable evidence on the matter.

“Par 108. Notwithstanding the fact that trustworthy data
“as to actual injury are but few, there is evidence pointing to
“the probability that such injury does at times accrue. We
“cannot overlook the danger to which the uncontrolled use of
“drugs in the food of the population may be likely to give rise.

“Par. 113. But the circumstances and considerations
“affecting the milk traffic are very different.

“ Milk, a very perishable substance peculiarly liable to
“ bacterial contamination, forms a very large proportion of the
“ daily food of the public.

“ The nutrition of infants and young children depends
“ greatly on the purity and abundance of the milk supply ; and
“ seeing how frequently milk is prescribed for invalids and con-
“ valscents, it is of the utmost importance that it should not be
“ the vehicle of any unsuspected agent.

“ While it is possible that milk containing boracic acid in
“ sufficient quantity to act as a preservative (say 30 grains to
“ the gallon) might be consumed to the amount of 4 or 5 pints
“ a day, without harmful results by most healthy children or
“ adults, there is evidence pointing to an injurious effect of
“ boracised milk upon the health of very young children.

“ Par. 116. There is this further objection to the use of
“ preservatives in the milk traffic, that they may be relied on to
“ protect those engaged therein against the immediate results of
“ neglect of scrupulous cleanliness. Under the influence of these
“ preservatives milk may be exposed without sensible injury, to
“ conditions which otherwise would render it unsaleable.

“ It may remain sweet to taste and smell and yet have in-
“ corporated disease germs of various kinds, whereof the
“ activity may be suspended for a time by the action of the
“ preservative ; but may be resumed before the milk is digested.

“ Par. 117. It has been put before us that it is not possible
“ to supply large towns, especially London, with new milk with-
“ out the aid of preservatives ; but we have received abundant
“ evidence to prove that this is no more than a matter of or-
“ ganization and system. No doubt the prohibition of preserva-
“ tives in milk offered for sale would tend to the disadvantage
“ of small retailers who have no cold storage, but this is not a
“ consideration which should stand in the way of a much needed
“ reform.

“ As to the feasibility of conducting the traffic in the largest
“ towns without preservatives, we have no doubt whatever.

“ In Denmark the use of all preservatives in milk is strictly
“ prohibited, and the prohibition is stringently enforced.

“ Much of the milk consigned from the country to
“ Copenhagen is conveyed in ice wagons, or wagons otherwise
“ specially adapted for the traffic, the property of purveying
“ companies in the capital.

“ Par. 119. Even more conclusive of the practicability of
“ supplying the metropolis with milk unmixed with preserva-
“ tives, was the evidence of Mr. T. Carrington Smith, who during
“ a series of several years consigned milk to London from Mid-
“ Staffordshire, a distance of 126 miles, under a contract which
“ prohibited him from the use of preservatives.

“ The milk was carefully strained and cooled by means of
“ water, precautions which the witness pronounced indispen-
“ sable, and there never was any trouble from the milk going
“ sour.

“ Mr. Smith, who appeared on behalf of the Royal
“ Agricultural Society, handed in letters from farmers sending
the milk of from 500 to 1,500 cows daily to London, from
Faringdon and Didcot, without the use of preservatives.”

In their conclusions the Departmental Committee
unanimously recommended :—

“ That the use of any preservative or colouring
“ matter whatever in milk offered for sale in the
“ United Kingdom be constituted an offence under
“ the Sale of Food and Drugs Acts.”

Upon the receipt of our report the County Council
decided to make representations to the Government De-
partments concerned, viz., the Local Government Board

and the Board of Agriculture and Fisheries, urging upon them the need of having the recommendation of the Departmental Committee carried into effect without further delay.

Acknowledgment of these representations was duly received from each Government Department.*

The samples during the year 1905 and the amount of preservative expressed as boracic acid, found in them were as follows:—

Sample.		Amount of Preservative.	
New milk	..	·0686 per cent. of boracic acid	(= 5·95 grs. per pint).
„ „	..	·08 per cent. of boracic acid	(= 7 grs. per pint).
„ „	..	·091 per cent. of boracic acid	(= 7·6 grs. per pint).
„ „	..	·0726 per cent. of boracic acid	(= 6·3 grs. per pint).
„ „	..	·086 per cent. of boracic acid	(= 7·5 grs. per pint).
„ „	..	·085 per cent. of boracic acid	(= 7·4 grs. per pint).
„ „	..	·1134 per cent. of boracic acid	(= 9·9 grs. per pint).
„ „	..	·147 per cent. of boracic acid	(= 12·8 grs. per pint).

* Since this date (viz., July, 1906) the Local Government Board has issued to local authorities a Circular in which the opinion is expressed “that action under the Sale of Food and Drugs Acts in regard to preservatives in milk is desirable,” and the Board suggests that (a) information should be obtained from public analysts as to how many samples have been examined for preservatives, and the results of their analyses; and (b) that milk traders should be notified by circular or otherwise that action will be taken under the Acts in instances where preservatives are reported in milk.

Sample.		Amount of Preservative.	
New Milk	..	·115	per cent. of boracic acid (= 10 grs. per pint).
„ „	..	·1	per cent. of boracic acid (= 8·75 grs. per pint).
„ „	..	·08	per cent. of boracic acid (= 7 grs. per pint).
„ „	..	·0785	per cent. of boracic acid (= 6·8 grs. per pint).

The following tables, giving information as to the number of samples taken in each of the separate districts, and as to the articles of food analysed during the twelve months ending March 31st, 1906, have been compiled from the report presented by the General Purposes Committee to the County Council at the meeting on the 24th May, 1906.

Food and Drugs Acts.

				Number of Samples taken.	Number of Samples Adulter- ated.	Number of Con- victions.
<u>Urban.</u>						
Acton .. .. .	..	..	..	188	5	5
Brentford .. .. .	..	..	..	108	—	—
Chiswick .. .. .	..	..	..	200	8	4
Ealing (<i>Borough</i>) .. .. .	..	..	..	175	4	5
Edmonton .. .. .	..	..	..	205	10	9
Enfield .. .. .	..	..	..	189	9	12
Feltham .. .. .	..	..	..	23	1	2
Finchley .. .. .	..	..	..	260	5	5
Friern Barnet .. .. .	..	..	..	30	—	—
Greenford .. .. .	..	..	..	30	—	—
Hampton .. .. .	..	..	..	63	5	4
Hampton Wick .. .. .	..	..	..	34	1	1
Hanwell .. .. .	..	..	..	71	3	6
Harrow .. .. .	..	..	..	87	2	2
Hayes .. .. .	..	..	..	36	2	2
Hendon .. .. .	..	..	..	134	5	4
Heston and Isleworth .. .. .	..	..	..	164	4	8
Hornsey (<i>Borough</i>) .. .. .	..	..	..	259	3	2
Kingsbury .. .. .	..	..	..	44	—	—
Ruislip-Northwood .. .. .	..	..	..	90	4	2
Southall-Norwood .. .. .	..	..	..	107	6	4
Southgate .. .. .	..	..	..	52	1	1
Staines .. .. .	..	..	..	79	2	2
Sunbury .. .. .	..	..	..	30	—	2
Teddington .. .. .	..	..	..	90	2	4
Tottenham .. .. .	..	..	..	319	10	7
Twickenham .. .. .	..	..	..	103	5	4
Uxbridge .. .. .	..	..	..	108		
Wealdstone .. .. .	..	..	..	63	1	—
Wembley .. .. .	..	..	..	25	2	2
Willesden .. .. .	..	..	..	484	15	12
Wood Green .. .. .	..	..	..	224	3	3
<u>Rural.</u>						
Hendon .. .. .	..	..	..	150	2	1
South Mimms .. .. .	..	..	..	17	—	—
Staines .. .. .	..	..	..	143	5	4
Uxbridge .. .. .	..	..	..	169	3	1
Total .. .. .	..	..	..	4,553	128	120

Number of Samples.

					Number of Samples Examined.	Number Adulterated.
Beer					34	—
Bread					3	—
Butter					386	6
Coffee					43	1
Confectionery, Jam					250	1
Drugs					85	—
Flour					9	—
Lard					140	—
Milk					8	1
„ new					2,719	109
„ separated					11	4
„ skimmed					30	1
„ machine skimmed					17	—
„ and water					1	—
Mustard					20	—
Pepper					73	—
Spirits					53	2
Sugar					10	1
Wine					7	—
Other articles					654	2
Total					4,553	128

In their report the General Purposes Committee state that the percentage of adulterated samples is 2·8 as compared with 3·3 per cent. in the previous year.

UN SOUND FOOD.

The subject of systematic and efficient supervision of one portion of the food supply of the public, namely, the meat supply, is intimately connected with the question of

private and public slaughter-houses, and in the section dealing with these premises earlier in this report reference has been made to the difficulty which is found by the local officials in effective control under the existing arrangements for the slaughter of animals in private slaughter-houses.

In the Sanitary Tables at the end of this report details will be found as regards each district, of the articles of unsound food seized or surrendered during 1905.

The total for the County is as follows :—

Animals seized	10
Articles or parcels seized ..	111
Articles or parcels surrendered ..	251

The following references are made in the district reports as to the action taken :—

Acton.—Mr. Kinch, the Sanitary Inspector, states that the various places where food is prepared or sold were frequently inspected. On several occasions he found the heads of pigs exposed for sale which showed signs of tuberculous disease of the neck glands. These were readily surrendered.

Brentford.—The Sanitary Inspector states that a large quantity of fruit, vegetables, fish and meat was surrendered and destroyed—

“One summons only was issued for food
 “seized, condemned and destroyed. This was
 “fruit which was exposed for sale. The
 “defendant was convicted and fined.”

Chiswick.—Mr. Clarke, the Sanitary Inspector, reports—

“ Careful attention has been given to the
“ various shops in the district, and a quantity
“ of fish and fruit has been destroyed, which
“ I have either discovered or which has been
“ submitted by the vendor when found in an
“ unsatisfactory condition. In one case I had
“ occasion to seize a quantity of unsound
“ apples from a stall in the High Road, which
“ were subsequently destroyed by order of the
“ Court, and the vendor cautioned.”

Edmonton.—The Inspector gives a detailed list of the articles destroyed during the year.

Enfield.—It is reported that a regular inspection has been made of the meat slaughtered and offered for sale in the district, including the stalls in the market, every week.

Finchley.—Mr. Franklin, the Sanitary Inspector, states that owing to the appointment of another clerk it has been possible to give more attention to food inspection. The greater part of the meat is said to be brought from the Metropolitan markets.

Hendon (urban).—In the report of the Sanitary Inspector it is stated that eight pieces of unsound meat were seized at a private dwelling house, which was used as a storehouse by a hawker who travelled a certain district with a hawker's

cart, from which he sold meat. Proceedings were taken, and he was fined 40s. and costs. A sanitary authority does not appear to possess any power to check the storing in such places of meat intended for the food of man, and can only take action when the meat is unsound or unwholesome, so as to prevent its being sold for human food.

Heston and Isleworth.—Dr. Steegmann mentions that special attention was paid during the year to the inspection of pigs and the carcasses of these animals intended for food, with particular reference to the possible existence of tuberculosis. The total number of pigs and carcasses inspected was 499, and in one case tuberculosis of the lungs was found, the rest of the carcase being apparently healthy. The diagnosis of the disease was subsequently proved to be correct by microscopical examination. The whole carcase was destroyed with the consent of the owner.

Hornsey.—85 lbs. of fish, 50 lbs. of fruit, and 18 cwt. of beef and pork were destroyed at the instance of the local authority.

Uxbridge (urban).—Dr. Lock states that systematic supervision is now practised as far as possible; 5 animals were seized, and 20 articles or parcels condemned.

Hendon (rural).—It is stated that no action was necessary in regard to unsound food.

CUSTOMS AND INLAND REVENUE ACTS, 1890 AND 1891.

Under the provisions of these Acts application may be made to medical officers of health by owners of houses intended for the use of the working classes, for certificates whereby they may claim abatement or exemption from inhabited house duty.

Reference is made as to such certificates having been applied for by the medical officers of several districts. In reference to one district I was consulted by the medical officer of health on the matter, and I visited with him a large number of premises with a view to assisting him in the matter.

LEGISLATION. NEW BY-LAWS.

During the Session of 1905, the Borough Council of Ealing applied to Parliament for certain additional powers, amongst which were included provisions relating to the public health. The Ealing Corporation Act, 1905, which was ultimately passed confers further power on the Corporation of the Borough of Ealing in regard to the following matters amongst others not directly connected with public health administration :—

Additional power as regards streets and buildings
(sections 13–33).

Additional power as regards sewers, drains and water-
closet accommodation (sections 34–45).

Additional power as regards nuisances, paving of yards,
water supply, making of by-laws as to cisterns,
manufacture and sale of ice creams, persons

engaged in washing of clothes, the protection against infection of books in lending libraries, examination of school children by the medical officer of health (sections 49–59).

Power to compensate persons suspending employment with a view to preventing the spread of infectious disease; to provide and supply medical practitioners with antidotes and remedies against infectious disease; to appoint more than one inspector of nuisances (sections 60–62).

Additional power with a view to the more effective control of the milk supply, as regards the notification by dairymen of cases of tuberculous disease of the udder, and power to take samples of milk and to inspect cows (sections 63–69).

Power to compensate dairymen (section 70).

Dr. Steegmann, of Heston and Isleworth, reports that with a view to dealing more effectually with nuisances arising from the keeping of pigs, the District Council adopted new by-laws which were approved by the Local Government Board. The by-laws are as follows:—

1. The occupier of any premises shall not keep more than three swine, the age of each of which exceeds twelve weeks, within a distance of 180 feet from any two or more dwelling houses not being within the same curtilage as such premises.
2. Every person who shall offend against the foregoing by-law shall be liable for every such offence to a penalty of Five Pounds, and in the case of a continuing offence to a further penalty of Twenty Shillings for each day after written notice of the offence from the Urban District Council of Heston and Isleworth.

Provided nevertheless that the Justices or Court before whom any complaint may be made, or any proceedings may be taken in respect of such offence, may, if they think fit, adjudge the payment as a penalty of any sum less than the full amount of the penalty imposed by this by-law.

3. These by-laws shall come into operation at the expiration of six calendar months from the date of their confirmation by the Local Government Board.

These by-laws do not become operative till 1906, and there is therefore no information as to their effect, but as nuisance from pig keeping is referred to in some of the reports of other districts, notably Wembley, I have put them out fully for the information of other medical officers of health.

PUBLIC ELEMENTARY SCHOOLS AND THE MEDICAL SUPERVISION OF CHILDREN ATTENDING THEM.

In reference to the subject of the medical supervision of children attending the public elementary schools, and what action has been taken in the Administrative County of Middlesex with a view to providing for such supervision, it is necessary first of all to set out the authorities who have charge of Elementary Education in Middlesex.

Under the provisions of the Education Act, 1902, part only of the area of the County comes under the supervision and control of the Education Committee of the County Council. In the remaining part each local authority is the authority for the purpose of Elementary Education. The differentiation is made by the Act on the basis of population of each district.

As regards Higher or Secondary Education, the whole area of the County is under the control and supervision of the Education Committee of the County Council.

The district authorities which have control of elementary education within their own areas are 13 in number, and are as follows:—

Acton.	Heston and Isleworth.
Chiswick.	Hornsey.
Ealing.	Tottenham.
Edmonton.	Twickenham.
Enfield.	Willesden.
Finchley.	Wood Green.
Hendon (urban).	

In the remaining districts elementary education is under the control of the Education Committee of the County Council. They are 23 in number, as follows:—

No. of Schools, &c., in the Sanitary Districts of the Elementary Education Committee under the County Council.

Districts.				Schools.	Departments.
Urban :—					
Brentford	..	..		6	15
Feltham	..	..		1	3
Friern Barnet	..	..		5	9
Greenford	..	..		1	1
Hampton	..	..		5	8
Hampton Wick	..	..		2	3
Hanwell	..	..		4	8
Harrow	..	..		2	6
Hayes	..	..		2	3
Kingsbury	..	..		1	1
Ruislip-Northwood	..	..		3	4
Southall-Norwood	..	..		5	8
Southgate	..	..		7	12
Staines	..	..		4	5
Sunbury	..	..		3	5
Teddington	..	..		6	10
Uxbridge	..	..		8	12
Wealdstone	..	..		2	6
Wembley	..	..		3	7
				70	126
Rural :—					
Hendon	..	..		4	10
South Mimms	..	..		3	5
Staines	..	..		16	23
Uxbridge	..	..		13	16
Rural				36	54
Urban				70	126
Total				106	180

From a glance at the diagrammatic map which forms the frontispiece of this report it will be seen that the area included in the above is extensive, that the schools are of necessity very scattered and far apart, and that to arrange for a systematic medical supervision of the children which shall be complete and comprehensive, and at the same time shall not add to an unnecessary extent to the education rate, is a matter of considerable difficulty. It is obvious that nothing of a systematic nature or deserving the name of supervision from a medical point of view can be done without the provision of staff for the purpose.

The publication recently of the report of the Inter-Departmental Committee on *the Medical Supervision and Feeding of Children attending Public Elementary Schools*, has directed special attention to the subject.

From this report it appears that although relatively few education authorities in the country have made definite arrangements for systematic medical inspection, yet in some districts, chiefly the larger urban areas, it has been already taken up, and the Committee report encouragingly of the results, and are satisfied that medical inspection is of considerable value in drawing attention to conditions and defects in children with a view to treatment by a medical practitioner. Treatment is a matter not for the Education authority, but for the private practitioner, for hospitals, for voluntary medical organisations, or for the poor law medical administration of the country. The authority is only concerned in detecting the defect in any child compelled to attend school, notifying it to, and in seeing that the matter is not neglected by, the parents or guardian.

Before referring further to the area under the County Council it will be well to set out, so far as information is obtainable from the reports of the local medical officers of health, what has been done in the first-mentioned list of districts :—

Acton.—No information, but I believe the Education Committee have made arrangement with a medical practitioner.

Chiswick.—No information.

Ealing.—A medical practitioner has been appointed by the Education Committee to carry out certain duties. The post is held by the medical man who is also medical officer of health.

Edmonton.—I believe that no definite arrangements have yet been made. With a view to more effective control of communicable diseases, the medical officer of health has suggested in a special report to the Education Committee of the District Council certain alterations in the procedure in force for dealing with children found by teachers to be suffering from such complaints. This sets out certain rules to be observed by teachers as regards children whom they find or know to be suffering from certain diseases, and suggests a system of daily notification to the medical officer of health by head teachers and attendance officers of the occurrence of new cases of disease. In connection with infectious disease the services of the female sanitary inspector were of much value.

Enfield.—No information.

Finchley.—It does not appear that any definite arrangements have been made for the medical supervision of elementary school children. Dr. Taylor, the medical officer of health, in his annual report, draws attention to the matter, sets out briefly the principal objects of medical inspection and

adds “ in order to fully meet these requirements it would be necessary to medically examine all the children in a school from time to time and keep a record of the conditions found at each examination.”

Hendon.—No information.

Heston and Isleworth.—No action has apparently yet been taken, but the matter of making arrangements for medical inspection has been under consideration, and the subject is comprehensively dealt with by the medical officer of health in an appendix to his report.

Hornsey.—A medical man has been appointed by the Education Committee for the purpose. The post is held by the medical officer of health.

Tottenham.—A medical man has been appointed by the Education Committee. The post is held by the medical officer of health.

Twickenham.—No appointment yet made. The work is practically confined to that done by the medical officer of health in connection with the occurrence of cases of infectious disease which came under his notice in his present capacity.

Willesden.—No definite appointment appears to have been made, but account is given of important work which has been carried out by the aid of teachers, and of the lady health inspectors under the supervision of the medical officer of health.

Wood Green.—No information.

As regards the action which has been taken in reference to medical supervision in the elementary education area under the control of the County Council, I may say that

so far, owing to the fact that there is no staff for the purpose, it has not been possible for me to do more than to attend to special matters at the request of the Education Committee, such as the examination of children who are candidates for scholarships, and to visit schools in conjunction with local medical officers of health, and to examine classes of children when one or other infectious disease has occurred amongst the scholars. Even this has involved a considerable amount of work.

The Committee, however, have devoted much consideration as to what had best be done in the matter, and I was requested to draw up a report which was presented. In writing this report it appeared to me that it was not wise to attempt to get out anything in the nature of a scheme which might be regarded as dealing completely with the whole subject of medical supervision, but rather to indicate what action might be taken with a view to *initiating* the work, as a complete scheme could be much better developed by stages as more knowledge was gained of the actual conditions which have to be dealt with in the elementary education area. I wrote as follows:—

In reporting to the Committee as to the manner in which the medical supervision of school children might be carried out, it will be well in the first place to set out the duties which are regarded as coming under this heading, and for this purpose the following list has been obtained from the report of the Inter-Departmental Committee on the Medical Supervision and Feeding of Children attending Public Elementary Schools:—

1. The prevention of the spread of infectious disease.
2. Examination of children absent from, and alleged to be physically unfit to attend school.

3. Periodical visits to the schools and examination of the eyes, ears, teeth, and general physical condition of the children.
4. Examination of blind, deaf, dumb, defective, and epileptic children.
5. To advise as to any matters in school methods and conditions which might affect injuriously the health of the children.
6. Examination of teachers on appointment and at other times, if necessary; and of candidates for pupil teacher scholarships.
7. Periodical examination of *all* children, and making an anthropometrical survey.

From the above the question of the sanitary supervision of school buildings has been excluded, inasmuch as the Committee has already provided for this.

It is obvious as regards this list of duties that, if carried out in their entirety, examination would have to be made of every child on entering school, followed by examination periodically afterwards, and that this would involve a considerable amount of work and a corresponding staff for the purpose, having in mind the difficulties which apply to an Education County where the schools are scattered over an extensive area, and where, consequently, much time is taken up in getting from one school to another.

For this reason it would probably be well, in initiating a scheme, not to attempt the periodic examination of every child—in other words, to exclude No. 7 in the list set out above. This would make a marked difference in the work to be got through.

In connection with the duties included in No. 6, it may be said that the examination of candidates for scholarships has already been carried out by me for the Education Committee, and as arrangements can readily be made for having these

examinations made at certain centres, little difficulty will arise in the matter. As regards the first part, namely, the certification of teachers on appointment, &c., it is probable that in practice this would be largely done by their own private medical attendant.

It may therefore be said that the subject for consideration resolves itself into the arrangements which should be made for dealing with the duties comprised in items 1-5 (inclusive) of the above list wholly, and No. 6 wholly or in part.

These duties are of two distinct classes, viz. :

Nos. 3, 4 and 5, which are capable of being dealt with by periodical visitation of the schools, and

Nos. 1 and 2 which are uncertain and irregular, and which (especially No. 1) need to be attended to as they arise, and with as little delay as possible.

As regards the first class it would be possible to arrange for definite periodical visitation of the schools, and speaking generally it would suffice if this were done three or four times a year. The teachers in the meantime should prepare and send in lists of those children who need to be examined. It would, however, be a mistake to have a hard and fast routine applicable to all schools alike, as regards periodic inspection, since some would, no doubt, need to be visited more frequently, whilst others in the better class districts would not require visitation as often as is set out above. The periods are mentioned in order to give an idea of the amount of work which it is necessary to provide for.

In reference to the other class of duties, it is not so easy to set out the work which would require to be done. At times when infectious disease is prevalent, the demands in connection with it would be considerable, as they would come from different parts of the County, whilst at other times they would be very much less. It is necessary here to refer to the fact that at the present time, as part of the

public health administration of a district, the local medical officers of health have definite relation to the occurrence of dangerous infectious complaints amongst school children, and that acting on the advice of these officials, Sanitary Authorities have the power to exclude scholars from, or to close a school or department with a view to preventing the spread of disease. The local medical officer of health, however, is not, under existing circumstances, in such close touch with schools as to enable him to take action which, in all probability, would lead to the prevention of infection in its earliest stages, with the result that when action can be taken the majority of the children liable to infection have been affected. In connection with the occurrence of infectious disease I have already on several occasions visited schools in the County and examined a large number of children. In this work it is essential to arrive at a decision rapidly, but it is also necessary to exercise much care and circumspection, whilst the conditions under which it has to be done not only render it difficult but involve the exercise of considerable patience.

Again, in the case of children away from school for a few days, it is quite possible that this may have been due to a mild attack of an infectious complaint for which medical advice was not obtained by the parents, and, in the absence of medical certification, such a child may be sent back and mix with others whilst in an infective condition.

I then indicated the methods which presented themselves for *initiating* a scheme for carrying out the duties as limited above, viz., items 1–6 in the list mentioned above, as follows :—

- (1) Utilising the services of the local medical officers of health by appointing them as medical inspectors of schools under the County Medical Officer.

* * * * *

- (2) The appointment of an officer or officers specially for the purpose to act under the County Medical Officer. The latter to be either whole time or part time officials.

I indicated in full detail the advantages and disadvantages of these alternative proposals, as they appeared to me to apply to the case, from my own knowledge of the special conditions of the County of Middlesex, and from the information and assistance which was kindly afforded me by the Chairman of the Education Committee (Mr. Regester), of the Elementary Education Committee (Mr. De Salis), and by the Secretary of the Committee.

The matter was carefully considered and discussed, and, finally, the Committee decided to postpone taking any action in the matter in view of the fact that an Education Bill had been introduced by the Government and was under consideration by Parliament (Session 1906).

SANITARY STAFF.

In several of the annual reports information is given as to the staff engaged in connection with the work of the public health departments of the various districts, but as in most of them no comment is made, it is not possible to give complete account relating to this matter for the whole County. It would be very useful knowledge if each Medical Officer gave information on this subject in his next report.

I would here briefly refer to the fact that in some districts female health visitors, or inspectors, have been added to the staff, *e.g.*, in Acton, Edmonton, Tottenham and Willesden.

This class of official has of late years been increasingly employed in the London Boroughs and other large towns and districts, and their services have been found to be

invaluable in dealing with matters which cannot from the nature of things be equally well dealt with by male officials. Thus, in connection with tenement dwellings they are able to give instruction and advice as to domestic cleanliness which would be resented by the housewife if given by a man; in connection with the work arising under the Factory and Workshop Acts, they are much better able to inspect premises where female workers are employed; whilst in attempting to reduce infantile mortality they are especially invaluable in tendering instruction and assistance to mothers as to how to feed and manage infants, and there can be no doubt that advice on this matter, given at the time when a mother is actually concerned in the bringing up of a young family, is incalculably of greater use than any such information which can be given to her by lectures, or as part of a curriculum when she is only a potential mother. In other directions also the work of female inspectors has been found useful.

I understand that since the end of 1905 it has been decided in the case of the district of Edmonton to discontinue the employment of a female sanitary inspector. In a district such as this where there is an increasing population, which includes a large proportion of the poorer class this appears to be a matter of regret.

In the districts of smaller size, or where the poorer class form a relatively smaller part of the community, a local authority may feel that they are not justified in the employment of an official of this class. In such cases it is worthy of consideration whether action could not be

taken by arrangement with some voluntary association already existing in the district and employing women, such as district nurses, in work of a kindred nature. They could not, of course, visit workshops or workplaces, but their work takes them into the homes of the poorer classes and they have frequent opportunities which might be made use of in giving instruction as regards infectious disease (especially whooping cough and measles) and its dangers, and as regards the feeding and management of children.

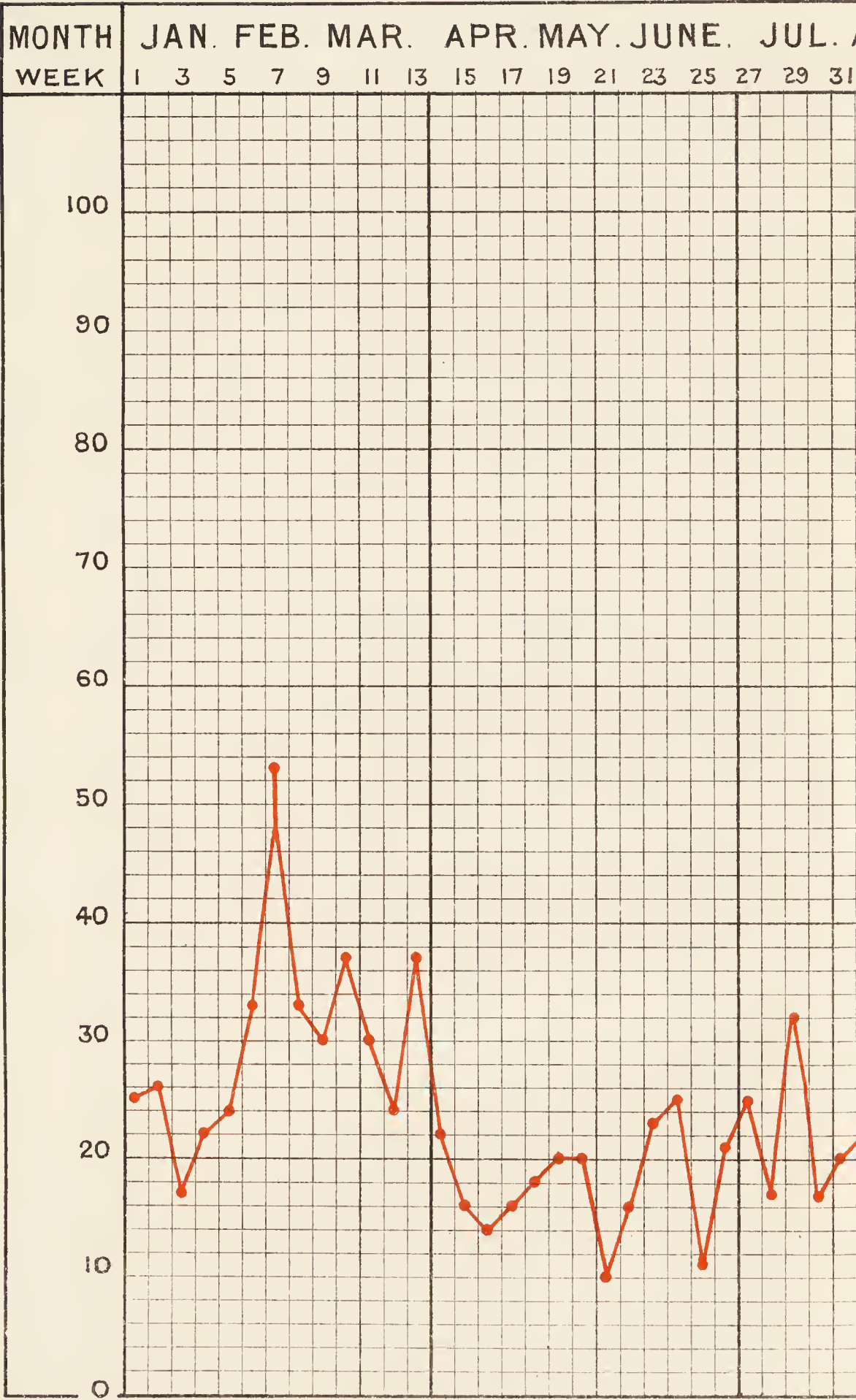
Dr. Ridge, Medical Officer of Health of Enfield, makes the following statement as to the advisability of appointing a female sanitary inspector :—

“The cases of epidemic diarrhœa were much fewer
“than in the previous year, due to the absence of
“prolonged heat. I think that a still further reduction
“would be effected by the appointment of a female
“sanitary inspector, as in some other districts, who
“should specially attend to houses and families in
“which there are young infants, as it is amongst
“these that the mortality is so great.”

Dr. Windle also writes as to the advisability of appointing a female inspector for the district of Southall-Norwood.

DIPHThERIA AND MEMBRANO

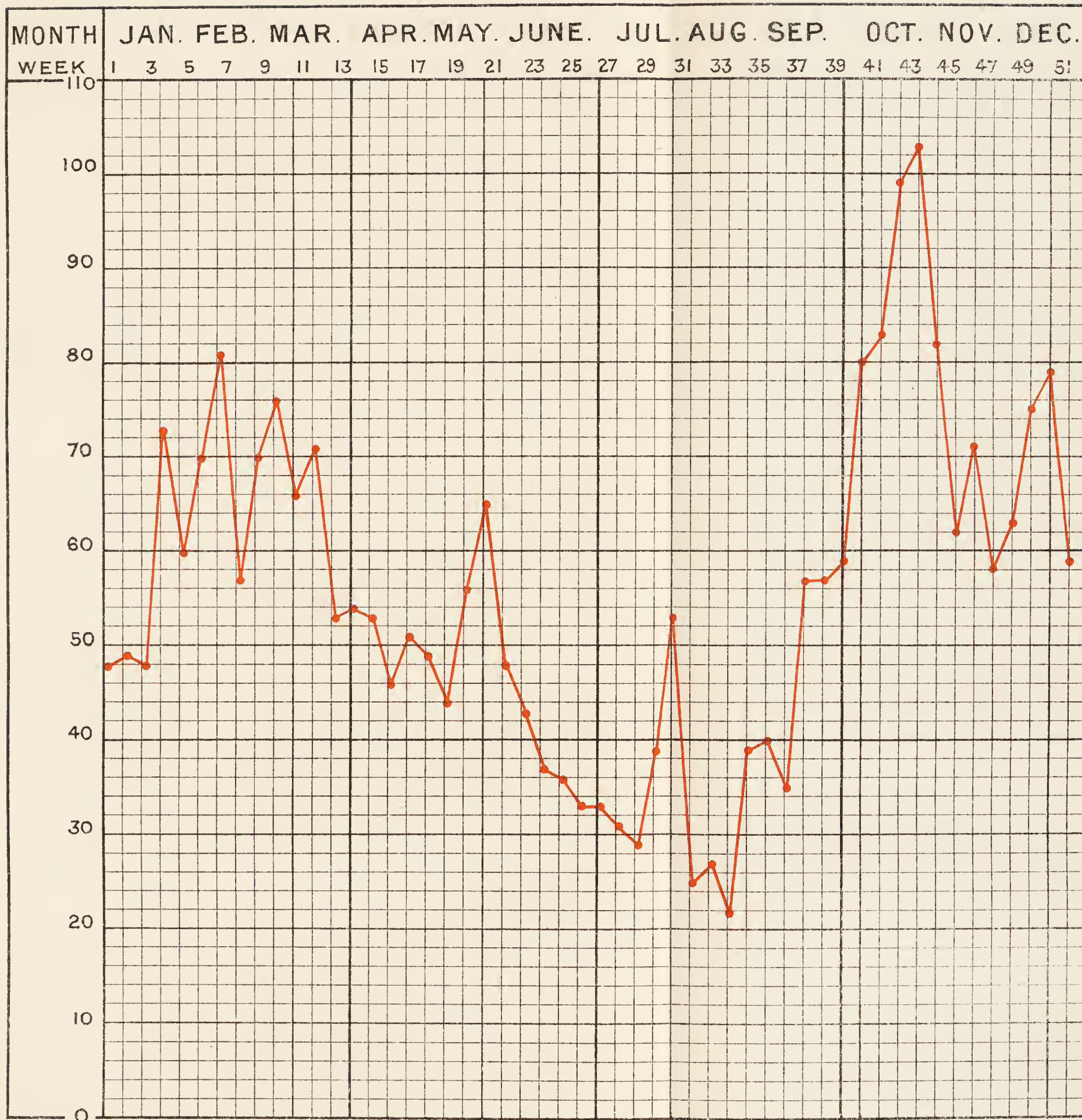
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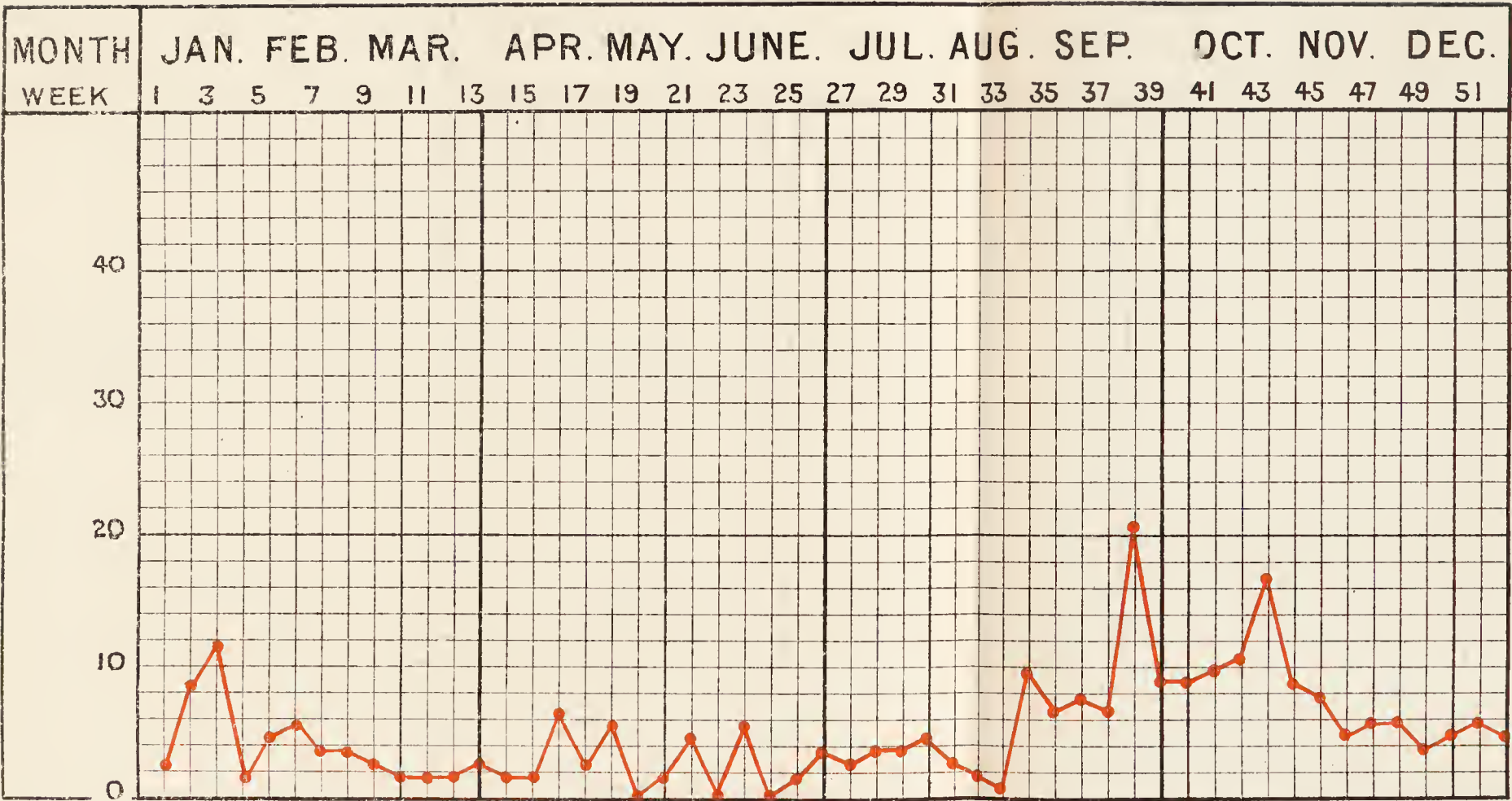
WEEKLY NOTIFICATIONS, 1905.



ADMINISTRATIVE COUNTY OF MIDDLESEX.

ENTERIC FEVER.

WEEKLY NOTIFICATIONS, 1905.



ADMINISTRATIVE COUNTY OF MIDDLESEX.

PART II.

SUMMARIES OF THE REPORTS OF THE DISTRICT MEDICAL OFFICERS OF HEALTH.

NOTE.—The death-rates given in this part are the recorded death-rates, and are not corrected for age and sex distribution, in order that they may be comparable with the average death-rates of the previous ten years. For corrected death-rates, *see* Table 3 in first part of report.

ACTON URBAN DISTRICT.

Medical Officer of Health, D. J. Thomas, M.R.C.S., L.R.C.P.

Area in acres	2,304
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	37,744 50,000
Birth-rate (1905)	30·5
Average birth-rate (1895-1904) ..	30·6
Death-rate (1905)	12·5
Average death-rate (1895-1904) ..	13·7
Zymotic death-rate (1905)	1·3
Infantile mortality (1905)	106
Average infantile mortality (1895-1904)	161

For 1905, full correction has been made in the death-rates by including the deaths of residents which occurred outside the district, and 92 such deaths occurred. This has not been done in previous years, therefore the average death-rates for the years 1895-1904 are too low. Notwithstanding this, however, the rates last year compare very favourably with those of past years.

The more important matters referred to in the report are—

The subject of the population of the district. This is dealt with at some length and it is shown that the estimate given for the previous year was too high, indeed the estimate arrived at for 1905 after considerable care by the medical officer is less by some two thousand than that given for 1904.

The question of the birth-rate; calculated on the total population this is higher than in the country generally, but if calculated on the number of women between 15-45 years of age it is lower.

The occurrence of an outbreak of diphtheria in the North Ward of the district during the latter part of the year. Aggregation in school and the presence of infective children, not showing clinical signs of the disease, had probably much to do with this outbreak.

Decrease in deaths of children from diarrhoeal disease. There is reason to think that the instructions given by the female Health Visitors has had influence in this connection.

The subject of infantile mortality.

The opening of the Isolation Hospital for ordinary infectious diseases in January, 1905.

The increased attention devoted to the inspection of meat and other foods, and the difficulties which attend a proper systematic control of the meat supply.

The compilation of a register of houses-let-in-lodgings with a view to enforcing the by-laws.

BRENTFORD URBAN DISTRICT.

Medical Officer of Health, Henry Bott, M.R.C.S., L.R.C.P.

Area in acres	1,091
	<i>Census, 1901. Estimated, 1905.</i>
Population ..	15,171 15,762
Birth-rate (1905)	33·6
Average birth-rate (1895-1904)	34·7
Death-rate (1905)	17·6
Average death-rate (1895-1904)	16·8
Zymotic death-rate (1905)	2·0
Infantile mortality (1905)	115
Average infantile mortality (1895-1904)	168

Correction for the deaths of residents dying outside the district has been made for 1905. In previous years the information for this purpose has not been available and the average death-rates for the ten years 1895-1904 are therefore too low.

In the report attention is chiefly directed to the following matters—

The infantile mortality. For the year 1905 this rate shows a decrease on that of previous years. In 1898 it was 223 per 1,000 births.

The decrease in the number of deaths from diarrhoeal complaints, and the absence of any deaths from measles.

An unusually large number of cases of diphtheria (83 cases notified) in the latter half of the year; personal infection and aggregation in schools appear to have had influence.

Attention is again directed to the difficulty of detecting cases of overcrowding, and it is again recommended that houses-let-in-lodgings should be registered.

The need for widening of the High Street. This is advocated by the Medical Officer of Health on the grounds that the "old and bad property" in the district adjoins the High Street, and would have to be pulled down for the purpose.

Bad cottage property, it is reported, is condemned and closed, but details are not given.

The "housing question" is said to be the great difficulty which confronts the sanitary authority. No specific recommendations are made as to how it might be dealt with, but it is suggested that with improvement and cheapening of railway communication the difficulty may be lessened in the future.

CHISWICK URBAN DISTRICT.

Medical Officer of Health, F. C. Dodsworth, L.R.C.P.

Area in acres	1,249
	<i>Census, 1901. Estimated, 1905.</i>
Population ..	29,809 33,160
Birth-rate (1905)	28·5
Average birth-rate (1895-1904) ..	29·9
Death-rate (1905)	12·9
Average death-rate (1895-1904) ..	13·5
Zymotic death-rate (1905)	1·7
Infantile mortality (1905)	107
Average infantile mortality (1895-1904)	138

The general death-rate for 1905 shows a decrease upon the average of the previous 10 years, notwithstanding the fact that full correction has been made for deaths occurring outside the district in 1905, whereas this was not done before 1904. Had this correction been made in previous years the decrease apparent in 1905 would be more marked.

The matters chiefly commented on in the report are—

The satisfactory decline in the infant mortality rate.

The absence, in epidemic form, of any of the notifiable infectious diseases.

The fact that “voluntary” notification of phthisis instituted in 1903 has not been made use of.

The completion of the Dust Destructor.

EALING (BOROUGH).

Medical Officer of Health, C. A. Patten, L.R.C.P., M.R.C.S.

Area in acres	3,225
Census, 1901.	Estimated, 1905,
Population 33,031	46,000
Birth-rate (1905)	23·3
Average birth-rate (1896–1904) ..	19·8
Death-rate (1905)	11·1
Death-rate (1904)	11·3
Zymotic death-rate (1905)	1·0
Infantile mortality (1905)	101
Infantile mortality (1904)	111

For the year 1905 full correction has been made for the deaths of residents occurring outside the district. As this has not been done before, the general death-rate cannot be fairly compared with those of previous years.

The following matters may be referred to—

An appreciable decrease in the infant mortality rate.

The absence of notifiable infectious disease in an epidemic form, except for a small outbreak of scarlet fever in connection with a private school.

Arrangements have been made for the free supply of antitoxin to medical practitioners for cases of diphtheria.

The occurrence of measles in epidemic form in the western part of the district.

The retention by the Council of beds in a sanatorium for the treatment of cases of phthisis.

The opening of two new blocks at the Isolation Hospital for scarlet fever.

EDMONTON URBAN DISTRICT.

Medical Officer of Health, A. W. J. MacFadden, M.B.,
C.M., D.P.H.

Area in acres	3,894
	<i>Census, 1901.</i> <i>Estimated, 1905.</i>
Population { (a) 46,899	56,758
(b) 44,911	54,606
Birth-rate (1905)	35·6
Average birth-rate (1895-1904)	33·8
Death-rate (1905)	13·3
Average death-rate (1895-1904)	15·8
Zymotic death-rate (1905)	2·3
Infantile mortality (1905)	128
Average infantile mortality (1895-1904)	161

Full correction has been made in regard to the above rates, allowing for the deaths of residents outside and for the deaths of non-residents dying in the district. Correction is also made for the population in institutions in the district but not belonging to it, viz.: Edmonton Union Workhouse and Infirmary, and the Strand Union Workhouse and Infirmary. In the above population (a) shows the gross population of the district, whilst in (b) the corrected population for statistical purposes is given.

The more important matters dealt with are as follows —

There is a well marked decrease in the deaths of children under one year which reflects itself in the general death-rate. Whilst meteorological and social conditions are

reported as probably having influence, importance is rightly attached to the efforts by the District Council, through the medium of a female inspector, in instructing mothers as to the care of infants. In addition, a pamphlet on the subject of the care of infants has also been prepared, but the use of this is much enhanced when it is distributed and at the same time explained by a woman, as is done here (*see* remarks, page 178).

There was no epidemic outbreak of scarlet fever or diphtheria. The difficulty of controlling scarlet fever owing to the occurrence of mild cases which do not come under medical supervision until several persons have been infected is referred to.

An interesting account of cases of enteric fever, most probably due to the consumption of shell fish, is given, and the desirability of greater control over this form of food is referred to.

Measles was epidemic in the last quarter of the year, and with a view to control of this and other non-notifiable infectious diseases, arrangements have been made by the Education Committee for a system of notification by teachers, &c., to the Medical Officer of Health of cases of infectious disease coming to their knowledge. Apart from this no systematic scheme for the medical supervision of school children is reported as having been yet initiated.

The arrangement for combining with Enfield and forming a Joint Hospital District was completed during the year.

Under the by-laws relating to new streets and buildings (113) all new houses are visited by the medical officer, in order that he may certify as to their fitness for habitation. One conviction for breach of this by-law was obtained.

Draft by-laws as to houses-let-in-lodgings are under consideration and have been sent to the Local Government Board for approval.

The need of extension or alteration in the sewage disposal arrangements in view of the increase of Edmonton and Southgate, which have a joint scheme, is under consideration.

ENFIELD URBAN DISTRICT.

Medical Officer of Health, J. J. Ridge, M.D., B.S., B.A., &c.

Area in acres	..	..	12,601
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>
Population	..	42,738	51,315
Birth-rate (1905) ..	..	..	26·4
Average birth-rate (1894–1905)		..	29·2
Death-rate (1905) ..	..	..	11·1
Average death-rate (1895–1904)		..	13·2
Zymotic death-rate (1905)	..	..	1·8
Infantile mortality (1905)	..	..	117
Average infantile mortality (1895–1904)			121

Correction for deaths of residents occurring outside the district is more fully made this year than in previous years, and the death-rates are accordingly relatively higher, but notwithstanding this, decrease is apparent.

A satisfactory decrease has taken place as compared with 1904 in the infantile mortality.

A continued lessening in the number of cases of diphtheria and enteric fever is noted. It is recommended that antitoxin for diphtheria should be supplied free to necessitous cases.

In connection with the subject of summer diarrhoea of children, the employment of a female sanitary inspector is advised (*see* page 179).

It is reported that four wells were closed owing to the water showing signs of recent sewage contamination.

A special report was presented on the subject of the deposit by the sanitary authority of house refuse in a field adjoining Southbury Road. The necessity of a dust destructor in the future is referred to.

A regular inspection of the meat supply has been made during the year.

FELTHAM URBAN DISTRICT.

Medical Officer of Health, C. D. Morris, L.R.C.P., M.R.C.S.

Area in acres	..	..	1,790.
	<i>Census, 1901. Estimated, 1905.</i>		
Population	..	4,534	5,281
Birth-rate (1905) ..	..	..	33·3
„ (1904) ..	..	..	29·0
Death-rate (1905)	..	..	13·4
„ (1904)	..	..	14·0
Zymotic death-rate (1905)	..	..	1·5
Infantile mortality (1905)	..	..	147
„ „ (1904)	..	..	206

The parish of Feltham was created a separate urban district in April, 1904, previous to which date it formed part of the Rural District of Staines.

Correction has been made in the death-rate of 1905 by the inclusion of the deaths of eleven persons who died outside the district.

The matters in the report to which attention may be specially directed are the following—

The high rate of infant deaths, in connection with which it is stated that a large number of women go out working in market gardens, leaving their children to the care of others.

The difficulty of isolating cases of infectious disease in many of the cottages. The need of isolation hospital accommodation is referred to, although owing to the small number of cases of infectious disease during the year, this was not felt to any extent.

The fact that Cerebro-Spinal Meningitis has been made compulsorily notifiable.

The need of a steam disinfecting apparatus.

Arrangements have been made with a view to providing mortuary accommodation.

The question of the sewerage of the district is under consideration and is shortly to be reported on by the Surveyor. During the year the pond on the green into which sewage discharges was thoroughly cleansed.

FINCHLEY URBAN DISTRICT.

Medical Officer of Health, G. C. Taylor, M.A., M.D., D.P.H.

Area in acres	..	..	...	3,384
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>	
Population ..	22,126		28,716	
Birth-rate (1905) ..	..	..	..	25·9
Average birth-rate (1895-1904) ..			..	24·6
Death-rate (1905) ..	..	..	..	9·9
Average death-rate (1895-1904)			..	10·8
Zymotic death-rate (1905)	..	..	..	0·6
Infantile mortality (1905)	..	..	..	91
Average infantile mortality (1895-1904)				107

For the purpose of the above rates full correction has been made by including the deaths of residents which occurred outside the district and excluding deaths of non-residents.

The chief matters of interest which are recorded for the year are as follows—

Decrease in the mortality rates, which are some of the lowest recorded. A well marked decline in the infant mortality.

The absence of any deaths from scarlet fever or measles, and the relatively low number of cases of infectious disease as compared with other years.

The fact that the evidence as to the cause of cases of typhoid fever indicated that infection had occurred outside the district.

The results of voluntary notification of consumption. Not more than eight cases were certified. The need of sanatorium provision is referred to.

The desirability of medical supervision of school children.

The need of improvement and extension at the sewage disposal works.

FRIERN BARNET URBAN DISTRICT.

Medical Officer of Health, F. A. Spreat, M.R.C.S., D.P.H.

Area in acres 1,303

	<i>Census, 1901.</i>	<i>Estimated, 1905.</i>
Population (District)	9,145	10,470
„ (Asylum)	2,735	2,426
Birth-rate (1905)		27·7
Average birth-rate (1895–1904) ..		27·6
Death-rate (1905)		10·6
Average death-rate (1895–1904) ..		10·6
Zymotic death-rate (1905)		1·0
Infantile mortality (1905)		82
Average infantile mortality (1895–1904)		115

For the purpose of the above rates, the population and deaths in the London County Asylum at Colney Hatch are excluded, and 17 deaths occurring outside the district are included. The average death-rate for the previous ten years is not corrected for outside deaths, as all the figures necessary are not available, hence the rate compared with that of the present year is too low.

The matters of chief note referred to are as follows—

Decrease in the amount of scarlet fever.

The occurrence of seven cases of typhoid during the year as regards six of which the infection appears to have been contracted outside the district.

The need of isolation hospital accommodation is again commented on.

The action taken in connection with applications to the medical officer of health for certificates for houses under the Customs and Revenue Acts.

Account of the sewage disposal works and the alterations and improvements effected during the year.

GREENFORD URBAN DISTRICT.

Medical Officer of Health, G. Hope, L.R.C.P., M.R.C.S., D.P.H.

Area in acres	3,041
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	819 1,100
Birth-rate (1905)	17·2
„ (1904)	21·9
Death-rate (1905)	9·0
„ (1904)	10·0
Zymotic death-rate (1905)	—
Infantile mortality (1905)	52
„ „ (1905)	208

Correction has been made by the inclusion of two deaths of residents which occurred outside the district. The figures are so small that the fluctuations from year to year are considerable and too much importance must not be placed on the rates of any single year.

It is pointed out that although the district is still quite rural it is not likely to continue so for long, and it is recorded that the District Council, with this in mind, are acquiring land for the needs of the district when the population increases.

One case of scarlet fever and one of diphtheria occurred. These were removed to the Ealing Isolation Hospital by arrangement with the Borough Council of this district.

Nuisance arose during the year from some offensive trade premises, and at the request of the medical officer I visited them with him on two occasions. As the result of the action taken, it is stated that the business will be discontinued here when the lease of the premises terminates.

Complaint was made to the County Council as regards certain dwelling-houses in the district. I visited these with the local officials and reported to the Committee on the matter.

HAMPTON URBAN DISTRICT.

Medical Officer of Health, Wentworth Tyndale, M.B.

Area in acres	2,036
Census, 1901.	Estimated, 1905.
Population .. 6,813	7,500
Birth-rate (1905)	30·8
Average birth-rate (1898–1904)	26·1
Death-rate (1905)	11·8
Average death-rate (1898–1904)	11·8
Zymotic death-rate (1905)	2·0
Infantile mortality (1905)	86
Average infantile mortality (1898–1904)	125

The more noteworthy matters which are referred to in the report are—

An outbreak of diphtheria in the western part of the district during the spring. The value of the new Isolation Hospital in helping to check the spread of the disease is commented on. Attention is directed to the desirability of obtaining medical advice at an early stage of throat complaints with a view to detection of infectious cases. The Council has decided to have bacteriological examinations made for medical practitioners in suspicious cases.

Two cases of enteric fever which occurred were both traced to the consumption of contaminated shell fish.

The adoption of Regulations under the Dairies, Cowsheds, and Milkshops Order.

The occurrence, at times, of nuisance from the deposit of house refuse in disused gravel pits is referred to, and the need of a dust destructor in the near future is foreshadowed.

HAMPTON WICK URBAN DISTRICT.

Medical Officer of Health, Th. Günther, M.D.

Area in acres	1,314
	<i>Census, 1901. Estimated, 1905.</i>
Population ..	2,606 2,606
Birth-rate (1905)	14·2
Average birth-rate (1895–1904)	19·9
Death-rate (1905)	8·4
Average death-rate (1895–1904)	11·1
Zymotic death-rate (1905)	0·7
Infantile mortality (1905)	108
Average infantile mortality (1895–1904)	80

Correction has been made for four residents dying outside the district, and for two non-residents who died in the district.

The matters of chief interest recorded are—

The fact that arrangement has been made with the Hampton District Council to receive cases of ordinary infectious disease into the hospital provided by the latter, and that Hampton Wick forms one of the constituent authorities of a Joint Board to provide a Smallpox Hospital.

The absence of infectious disease in an epidemic form. No case of enteric fever, puerperal fever, or smallpox was notified during the year.

HANWELL URBAN DISTRICT.

Medical Officer of Health, G. Hope, D.P.H., M.R.C.S.,
L.R.C.P.

Area in acres	1,067
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	10,438 19,428
Birth-rate (1905)	28·2
Average birth-rate (1895–1904) ..	29·9
Death-rate (1905)	8·2
Average death-rate (1895–1904) ..	11·8
Zymotic death-rate (1905)	0·5
Infantile mortality (1905)	103
Average infantile mortality (1895–1904)	150

For the first time correction has been made this year in the death-rates for the deaths of residents dying outside the district, and 24 such deaths have been added. The average rates of previous years are therefore too low.

The more noteworthy subjects dealt with in the report are—

A well-marked decrease in the infant mortality rate and the recommendation that full particulars as to births registered should be obtained by the District Council.

The occurrence of an outbreak of scarlet fever (105 cases notified) in the latter part of the year, and the difficulties and hardship which were caused owing to the need of an Isolation Hospital to which the cases could be removed. School influence largely accounted for the spread of the disease, and it was necessary to close one school (*see* pages 56, 57 and 108).

HARROW URBAN DISTRICT.

Medical Officer of Health, J. Fletcher Little, M.B., M.R.C.P.

Area in acres.. ..	2,028
	<i>Census, 1901. Estimated, 1905.</i>
Population ..	10,220 13,000
Birth-rate (1905)	24·0
Average birth-rate (1895-1904)..	22·5
Death-rate (1905).. ..	9·3
Average death-rate (1895-1904)	9·6
Zymotic death-rate (1905) ..	0·9
Infantile mortality (1905) ..	57
Average infantile mortality (1895-1904)	97

Correction has been made in calculating the above rates by the inclusion of the deaths of 19 residents dying outside, and the exclusion of 1 death of a non-resident.

The matters of most interest in the report are—

The decision of the Council to have a census made at Midsummer, 1906.

The low infantile mortality.

The absence of infectious disease in an epidemic form. Only 1 death occurred from notifiable disease, viz., from enteric fever, but 9 deaths were attributed to whooping cough. It is recommended that leaflets on the risks of the latter complaint, and also in regard to measles, be prepared and distributed.

The formation of a Joint Hospital Board, of which Harrow forms a constituent authority, for the provision of a Smallpox Hospital.

The voluntary notification by some practitioners in the district of cases of consumption. The desirability of providing sanatorium treatment is referred to.

The completion of the new Scarlet Block for 10 beds at the Isolation Hospital. An excellent account with plans of the building is given. The total expenditure of the extensions was £2,750 or £275 per bed.

The desirability of "Mount Park district" in Northolt parish being transferred to the district of Harrow, and the recommendation as to the desirability of considering the question of providing a public slaughter-house, especially with a view to adequate inspection of the meat supply are again repeated.

HAYES URBAN DISTRICT.

Medical Officer of Health, J. W. Higginson, M.R.C.S.,
L.R.C.P.

Area in acres.	3,311.
<i>Census, 1901. Estimated, 1905.</i>	
Population	2,594 3,000
Birth-rate (1905)	32·6
Death-rate (1905)	12·6
Zymotic death-rate (1905)	—
Infantile mortality (1905)	61

The parish of Hayes, which previously formed part of the Rural District of Uxbridge, was newly constituted into a separate urban district in October, 1904. Correction has been made for the purpose of the above rates by the inclusion of 4 deaths of residents which occurred outside the district.

The matters referred to in the report are as follows—

The occurrence of 9 cases of diphtheria, of which 4 occurred in one family living in a damp and insanitary cottage. Only 1 other case of infectious disease (viz., erysipelas) was notified during the year.

The fact that the need which has existed for cottage accommodation is being met by new premises which are being erected.

Reference is made to the sewerage scheme partially completed by the Uxbridge Rural District Council. A further inquiry by the Local Government Board has been necessary, and it is expected that the scheme will now shortly be completed.

In connection with the water supply two wells were closed. About 80 per cent. of houses have a continuous service from the Rickmansworth Water Company.

HENDON URBAN DISTRICT.

Medical Officer of Health, F. W. Andrew, M.R.C.S., L.R.C.P.

Area in acres	8,382
	<i>Census, 1901. Estimated, 1905.</i>
Population (<i>a</i>)	22,450 26,143
(<i>b</i>)	21,685 25,488
Birth-rate (1905)	27·7
Average birth-rate (1895–1904) ..	28·7
Death-rate (1905)	11·7
Average death-rate (1895–1904) ..	12·7
Zymotic death-rate (1905)	1·8
Infantile mortality (1905)	115
Average infantile mortality (1895–1904)	146

Population (*a*) includes that of institutions situated in but not entirely belonging to the district, namely, Cleveland Street Sick Asylum belonging to London, and the Workhouse and Workhouse Schools. The population and deaths of non-residents in these have to be deducted to arrive at the actual figures belonging to the district for statistical purposes. Under (*b*) this corrected population is shown.

The more important subjects referred to are—

The prevalence of a mild form of Scarlet Fever throughout the year; also of measles. A leaflet on the dangers of the latter disease was distributed to householders.

The need of additional accommodation for scarlet fever at the Isolation Hospital and the absence of accommodation for cases of diphtheria is again commented on.

The construction of new "bacteria" beds at the sewage works.

The need of additional assistance in the public health department.

HESTON AND ISLEWORTH URBAN DISTRICT.

Medical Officer of Health, E. J. Steegmann, M.B., D.P.H.

Area in acres.	6,859
	<i>Census, 1901. Estimated, 1905.</i>
Population	30,863 35,060
Birth-rate (1905)	29·3
Average birth-rate (1895-1904)	29·3
Death-rate (1905)	13·5
Average death-rate (1895-1904)	15·3
Zymotic death-rate (1905)	1·9
Infantile mortality (1905)	127
Average infantile mortality (1895-1904)	148

Correction for the deaths of residents occurring outside the district is made this year and 23 such deaths are included, whilst 223 deaths of non-residents are excluded.

The difficulty of arriving at an estimate of the population is dealt with at length and the conclusion is arrived at that in the case of this district the more accurate estimate is one based on the number of occupied houses at a given date.

Much care has been given to the subject of the birth and death-rates with a view to arriving at reliable results, and the methods adopted in arriving at the figures are fully detailed.

A well marked decrease in the infantile mortality of the district as compared with the average of previous years is noticeable. An analysis of the ages of children under one

year, based on the new table of the Local Government Board, is given, and it is shown that 51 per cent. occurred before three months of age.

Throughout the year diphtheria was present to an increased extent in the district.

The need for increasing the accommodation at the Isolation Hospital (Joint Hospital with Richmond, Surrey) is again referred to.

In connection with the sanitary work in the district, it is stated that with increasing population and growth of the district the question of addition to the sanitary staff will need consideration before long.

A new by-law in regard to pig-keeping has been approved by the Local Government Board and is now in force.

The District Council have decided not to allow any more private slaughter-houses to be established in the district.

Details are given as to the condition of dairies, cowsheds and milkshops, and as to the work done in connection with the inspection of food in the district.

The inspector's report on canal boats is included in the report.

In an appendix the subject of medical inspection of school children is dealt with.

HORNSEY (BOROUGH).

Medical Officer of Health, H. Coates, M.D., D.P.H.

Area in Acres	..	..	2,874
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>
Population ..	72,056		85,213
Birth-rate (1905) ..	..	..	18·3
Average birth-rate (1895-1904)		..	20·8
Death-rate (1905) ..	..	..	8·1
Average death-rate (1895-1904)		..	8·7
Zymotic death-rate (1905)	..	..	0·4
Infantile mortality (1905)	..	..	67
Average infantile mortality (1895-1904)			99

Correction for the deaths of residents outside the district is fully made this year. This would tend to make the death-rate relatively higher in comparison with those of earlier years.

The births have been corrected by adding 10 which occurred in Edmonton Workhouse.

The matters of chief interest dealt with in the report are the following—

The fact that the increase in population during the last twelve months has been much smaller than previously, and that a considerable decrease has taken place in Stroud Green Ward (834).

The continued decrease in the birth-rate, one of the lowest in England when compared with districts of a similar size.

The death-rates from Tuberculosis and Cancer, as regards the latter of which noticeable increase has taken place in late years.

The death-rate from "zymotic" diseases and the infantile mortality rate which are the lowest recorded.

The absence of any epidemic outbreak of notifiable infectious disease, although the total number of cases was greater than in 1904. As regards diphtheria, infection at school played an important part; and of 20 cases of typhoid, 3 were contracted outside the district.

The details as to the routine sanitary work which has been carried out by the Public Health Staff during the year.

KINGSBURY URBAN DISTRICT.

Medical Officer of Health, F. W. Andrew, M.R.C.S., L.R.C.P.

Area in Acres	...	..	..	1,829
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>	
Population ..	757		800	
Birth-rate (1905) ..	..	..	..	22·5
Average birth-rate (1901-1904)			..	19·4
Death-rate (1905) ..	..	..	..	11·2
Average death-rate (1901-1904) ..			..	8·8
Zymotic death-rate (1905)	..		..	—
Infantile mortality (1905)	..		..	111
Average infantile mortality (1901-1904)				83

Correction has been made for 1905 by the inclusion of 3 deaths of residents which occurred outside the district.

Only 3 cases of notifiable infectious disease are reported, all due to diphtheria.

No death occurred from any of the chief epidemic diseases.

RUISLIP-NORTHWOOD URBAN DISTRICT.

Medical Officer of Health, L. W. Hignett, M.B., M.R.C.S.

Area in acres	6.585
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	3,560 4,515
Birth-rate (1905)	25.4
Death-rate (1905)	7.0
Zymotic death-rate (1905)	0.4
Infantile mortality (1905)	69

The parish of Ruislip, which previously formed part of the Rural District of Uxbridge, was newly constituted a separate urban district in October, 1904. Correction in the above rates has been made by the addition of 3 deaths which occurred outside the district and the exclusion of 6 non-residents who died in Mount Vernon Hospital, Northwood.

In this report account is given of the general character of the district which in the northern part, known as Northwood, is almost entirely residential, whilst the villages of Ruislip and Eastcote in the centre of the district are partly residential and partly agricultural.

A clear and succinct account is also given of the sewage system (dual), the sewage works and the water supply.

As the result of a Local Government Board Inquiry, the district forms part of the Uxbridge Joint Hospital Board. There is at present no steam disinfecting apparatus for the district, but arrangements have been made for the use of that belonging to the Hendon Rural District.

Regulations under the Dairies, Cowsheds, and Milkshops Order, based on the model regulations of the Local Government Board, have been adopted, also by-laws relating to slaughter-houses. It is recommended that by-laws as to houses-let-in-lodgings should be adopted.

Account is given of the method of disinfection of rooms.

House refuse is collected weekly and carted to brickfields.

SOUTHALL-NORWOOD URBAN DISTRICT.

Medical Officer of Health, J. D. Windle, M.D., Ch.B.

Area in acres 2,575

Census, 1901. Estimated, 1905.

Population (District) 10,365 17,712

„ (Asylum) 2,835 2,849

Birth-rate (1905) 32·5

Average birth-rate (1891–1901) .. 31·3

Death-rate (1905) 10·3

Average death-rate (1891–1901) .. 14·1

Zymotic death-rate (1905) .. . 1·5

Infantile mortality (1905) 100

Average infantile mortality (1894–1903) 138

In calculating the above rates the deaths and population of the London County Asylum (Hanwell) are excluded.

The general death-rate is the lowest recorded for fifteen years, and the infant mortality, though higher than in 1904, is, with this exception, lower than for many years. The deaths from diarrhoeal diseases in infants and from prematurity are still high, and with a view to lessening these the appointment of a female inspector is wisely advocated.

There was an absence of epidemic outbreak of scarlet fever or diphtheria. The origin of the cases is gone into at length, and the difficulty of dealing with scarlet fever,

especially owing to the spread of infection from unrecognized cases is again explained. Systematic medical supervision of school children is advocated with a view to lessening the spread of infection.

Account is given of the work at the Isolation Hospital.

The housing accommodation of the district is reported on, and it is pointed out that some houses erected a few years back owing to evasion of the by-laws will probably need to be dealt with under the Housing of the Working Classes Act in the near future.

Inspection of Canal Boats was systematically carried out, and a marked improvement is noted.

Account is given of the methods of sewage and house refuse disposal.

It has been decided to erect a dust destructor.

SOUTHGATE URBAN DISTRICT.

Medical Officer of Health, A. Sidney Ransome, B.A.,
M.B., D.P.H.

Area in acres	3,597
	<i>Census, 1901. Estimated, 1905.</i>
Population ..	14,993 22,400
Birth-rate (1905)	20·6
Average birth-rate (1895-1904) ..	24·3
Death-rate (1905)	7·9
Average death-rate (1895-1904) ..	10·4
Zymotic death-rate (1905)	0·7
Infantile mortality (1905)	77
Average infantile mortality (1895-1904)	110

Correction for the purpose of the above rates has been made by the inclusion of 29 deaths occurring outside the district and the exclusion of 13 deaths of non-residents during 1905.

The more noteworthy features referred to are—

The increase in population, estimated to be 3,400, which is the largest recorded, and is due to the large number of new houses occupied, “more especially at Winchmore Hill and Palmer’s Green, where 281 and 235 new houses were respectively erected and occupied.” In Southgate 117 houses were newly occupied.

A decrease in the birth-rate of 2·8 per 1,000 as compared with 1904.

The higher death-rate of New Southgate as compared with other parts of the district. This it is stated is probably due to the fact that it is "on the whole the poorest and most thickly populated part of the district." The number of deaths from tubercular diseases and from infantile diarrhoea respectively here exceeds those in the three other localities of the parish together. With this exception there was no marked incidence of disease during the year.

The fact that the district is one of the constituent authorities of a Joint Hospital Board, which has been created to provide Smallpox hospital accommodation.

The disposal of house refuse by tipping in a disused gravel pit at Barrowell Green. The number of houses in the immediate vicinity is increasing, and the refuse at times causes considerable nuisance and gives rise to swarms of flies in the neighbourhood. It is reported that the question of erecting a dust destructor is under consideration.

The need of suitable dwellings for the working classes is again commented on.

STAINES URBAN DISTRICT.

Medical Officer of Health, F. C. Tothill, M.B., C.M.

Area in acres 1905.

Census, 1901. Estimated, 1905.

Population .. 6,688 6,885

Birth-rate (1905)	22·8
Average birth-rate (1895–1904) ..	27·4
Death-rate (1905)	11·0
Average death-rate (1895–1904) ..	12·8
Zymotic death-rate (1905)	0·7
Infantile mortality (1905)	82
Average infantile mortality (1895–1904)	110

Correction for the purpose of the above rates has been made by the inclusion of 3 deaths of residents occurring outside the district.

There is a satisfactory decrease in the infant mortality rate. In 1904 it was 147 per 1,000 births.

The more noteworthy features in the report are—

A marked increase in the number of cases of scarlet fever (21 as compared with 3 in 1904 and 1 in 1903).

Measles was prevalent during the summer holidays and mumps in November and December.

Attention is again directed to the absence of an isolation hospital, and the need of some arrangement for steam disinfection of articles of bedding, &c., is again reported.

The house accommodation in the district is said to be sufficient.

Increase in the area of the "filter beds" at the sewage works is recommended.

There is one offensive trade carried on in the district—a candle factory.

Details are given as to the sanitary work done.

SUNBURY URBAN DISTRICT.

Medical Officer of Health, E. F. Palgrave, M.R.C.S., L.R.C.P.

Area in acres	..	2,659.
	<i>Census, 1901.</i>	<i>Estimated, 1905.</i>
Population	4,544	4,750
Birth-rate (1905) .. ..	..	29·0
Average birth-rate (1895–1904) ..	..	29·4
Death-rate (1905) .. ..	..	12·2
Average death-rate (1895–1904)	..	13·9
Zymotic death-rate (1905) .. ..	..	0·8
Infantile mortality (1905) .. ..	..	123
Average infantile mortality (1895–1904)		125

For the purpose of the above rates, correction is made by the inclusion of the deaths of 6 residents outside the district.

The matters of chief interest referred to in this year's report are—

The fact that diphtheria in epidemic form terminated during the year and that not more than ten cases, equal to an attack rate of 2·1 per 1,000 persons living, occurred.

The occurrence of an epidemic of measles at the end of the year.

A decrease in the number of cases of scarlet fever to rather more than a quarter of that in the previous year. Attack rate 4·2 per 1,000 persons living.

The fact that the need for isolation hospital accommodation is still occupying the attention of the District Council.

The improvements which are being effected in the sewerage of the district.

No reference is made as to whether the adoption of Regulations under the Dairies, Cowsheds and Milkshops Order, which was recommended in the report of 1904, has been further considered by the District Council.

The fact that a closing order made by the magistrates as regards certain insanitary property was withdrawn upon the carrying out of alterations and improvements.

TEDDINGTON URBAN DISTRICT.

Medical Officer of Health, Tb. Günther, M.D.

Area in acres..	..	..	1,214
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>
Population ..	14,037		16,350
Birth-rate (1905) ..	..	..	23·3
Average birth-rate (1895–1904) ..		..	24·3
Death-rate (1905) ..	..	..	11·5
Average death-rate (1895–1904)		..	12·2
Zymotic death-rate (1905) ..	..	..	0·8
Infantile mortality (1905) ..	..	..	110
Average infantile mortality (1895–1904)			137

For the purpose of the above rates corrections have been made, thus: deaths of non-residents excluded, 5, deaths of residents outside the district included, 21.

The matters chiefly referred to in this report are—

An increase in scarlet fever of a mild type and unaccompanied by any deaths.

Complaints as to nuisance to residents from the deposits of house refuse in disused gravel pits adjoining their houses in Atbara and Munster Roads.

The daily collection of house refuse instituted last year has been continued without difficulty, except in a few instances.

The fact that arrangement has been made with the District Council of Hampton for the accommodation of four patients in the Isolation Hospital of the latter authority. A temporary arrangement has also been made as regards smallpox cases with the Croydon and Wimbledon Joint Hospital Board.

TOTTENHAM URBAN DISTRICT.

Medical Officer of Health, J. F. Butler-Hogan, B.A.,
M.D., D.P.H.

Area in acres	3,013
	<i>Census, 1901. Estimated, 1905.</i>
Population ..	102,541 124,126
Birth-rate (1905)	28·9
Average birth-rate (1895–1904) ..	30·4
Death-rate (1905)	12·5
Average death-rate (1895–1904) ..	13·1
Zymotic death-rate (1905)	1·0
Infantile mortality (1905)	116
Average infantile mortality (1895–1904)	147

In the above rates correction has been made by the exclusion of 231 deaths in the district of non-residents and by including 222 deaths of residents which occurred outside the district. Correction has also been made for previous years as far as possible.

The more noteworthy matters dealt with in this report are—

The subject of infantile mortality and the feeding of infants by hand.

The subject of infection in scarlet fever, diphtheria, and enteric fever; the treatment of diphtheria by anti-toxin.

The means to be adopted by the individual with a view to the prevention of consumption.

The results of the medical supervision of school children and the control of measles.

Details as to the sanitary work carried out during the year.

TWICKENHAM URBAN DISTRICT.

Medical Officer of Health, W. Marston Clark, M.R.C.S.,
D.P.H.

Area in acres	..	..	..	2,421
	<i>Census, 1901. Estimated, 1905.</i>			
Population	..	20,991		26,000
Birth-rate (1905)	..	..	..	27·4
Average birth-rate (1895-1904)	..		..	26·6
Death-rate (1905)	..	..	..	13·4
Average death-rate (1895-1904)	..		..	12·2
Zymotic death-rate (1905)	..	..	..	0·7
Infantile mortality (1905)	..	..	..	127
Average infantile mortality (1895-1904)	..			137

Full correction for the deaths of residents occurring outside the district has been made for 1905. As this has not been done before, the present death-rate compares unfavourably with the average of previous years. It does not do so if these deaths are omitted.

With the exception of an outbreak of measles necessitating closure of two schools, infectious disease does not appear to have been prevalent.

The District Council have acquired a site on which to erect a permanent hospital for ordinary infectious disease.

One private well was closed owing to the water being contaminated.

The erection of a dust destructor is nearly complete.

Much difficulty has been experienced in detecting cases of overcrowding.

UXBRIDGE URBAN DISTRICT.

Medical Officer of Health, J. L. Lock, M.A., M.B., B.C.,
M.R.C.S.

Area in acres	868
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	8,585 9,165
Birth-rate (1905)	28·5
Average birth-rate (1895–1904) ..	26·3
Death-rate (1905)	17·3
Average death-rate (1895–1904) ..	16·8
Zymotic death-rate (1905)	1·6
Infantile mortality (1905)	110
Average infantile mortality (1895–1904)	139

Correction has been made in the death-rates, 1905, by including 28 deaths occurring outside district and excluding 1 death of a non-resident.

There was an absence of prevalence of infectious disease in the district during the year, except for an outbreak of measles during June and July which necessitated the temporary closure of two infant schools.

Attention is again directed to the need of a steam disinfecting apparatus. This need will probably be met by some proposed alterations at the joint isolation hospital on the Board of which Uxbridge is represented.

Improvement has been effected by the paving of "yards" common to several houses at the rear of houses in the High Street.

A weekly collection of refuse is recommended.

Improvement in the supply of water to houses situated in the higher parts of the town is under consideration.

A recommendation by the medical officer as to the desirability of adopting by-laws as to houses-let-in-lodgings was not carried out by the District Council.

A public mortuary has now been erected.

Inspection of cowsheds is made by a veterinary inspector, but no reference is made as to the results of his inspections. It is desirable that these should be included in the annual report of the medical officer of health.

WEALDSTONE URBAN DISTRICT.

Medical Officer of Health, G. H. Butler, L.R.C.P.,
M.R.C.S.

Area in acres	1,061
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	5,901 9,652
Birth-rate (1905)	27·1
Average birth-rate (1895–1904)	29
Death-rate (1905)	8·9
Average death-rate (1895–1904)	9·6
Zymotic death-rate (1905)	1·4
Infantile mortality (1905)	87
Average infantile mortality (1895–1904)	123

Correction is made in the rates for 1904 by the inclusion of 9 deaths of residents occurring outside the district.

The matters chiefly referred to are—

The decrease in the infant mortality rate, which has been for the most part continuous during the last eleven years.

The relatively high mortality from whooping cough.

The entire absence of any notified case of enteric fever for two years.

The prevalence of measles and whooping cough during the middle of the year.

Reference is made at length to the subject of tuberculosis.

Comment is made as to the difficulty in abating overcrowding owing to high rents; to badly constructed flats in the district, and to certain insanitary property which the medical officer does not consider fit for human habitation. As regards the last it is stated that they were the subject of a special report, but no information is given as to what action was taken.

A quotation is given from the report of 1902 as to the need of a separate isolation hospital for the district. At present cases are sent by arrangement to the hospital of the Hendon Rural District.

It has been decided to make a weekly collection of house refuse throughout the year.

It is recommended that the names and addresses of children born should be obtained. This is necessary information for a medical officer of health.

WEMBLEY URBAN DISTRICT.

Medical Officer of Health, C. E. Goddard, M.D.

Area in acres	..	..	4,564
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>
Population ..	4,519		5,895
Birth-rate (1905) ..	..	..	26·4
Average birth-rate (1895–1904) ..		..	24·5
Death-rate (1905) ..	..	..	9·3
Average death-rate (1895–1904)		..	9·1
Zymotic death-rate (1905)	..	..	1·1
Infantile mortality (1905)	..	..	134
Average infantile mortality (1905–1904)			98

Correction in the death-rate of 1905 is made by the inclusion of 12 deaths of residents which occurred outside the district. The figures for this purpose have not been available in previous years, hence the 1905 rate is not really comparable with the average of earlier years.

There is a marked increase in the infant mortality, but as the figures are small they cannot be regarded as fully reliable. Of 12 deaths under 1 year, 4 were due to whooping cough and 6 to premature birth.

Scarlet fever occurred throughout the year, and some cases were removed to the Isolation Cottage at Alperton. A corrugated iron room was also erected for isolating male cases.

It is recommended that a stock of antitoxin for cases of diphtheria be kept at the local office for the use of medical men, also outfits for taking specimens for bacteriological examination.

Slaughter-houses, Cowsheds, and Bakehouses are reported as satisfactory, but the condition of the piggeries in the district is adversely criticised.

Much nuisance from smoke from works in an adjoining district occurred during the year.

WILLESDEN URBAN DISTRICT.

Medical Officer of Health, W. Butler, M.B., C.M., D.P.H.

	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>	
Population	114,811		140,758	
Birth-rate (1905) .. ..	..	..	..	29·8
Average birth-rate (1895–1904) ..			..	31·7
Death-rate (1905) .. ..	..	..	..	12·4
Average death-rate (1895–1904)			..	13·8
Zymotic death-rate (1905) .. ..	..	..	..	1·7
Infantile mortality (1905) .. ..	..	..	..	110
Average infantile mortality (1895–1904)				136

In the above rates correction has been fully made, as in previous years, thus : deaths of non-residents excluded, 10, deaths of residents occurring outside the district included, 182.

Interesting figures are given as to the birth-rate based on the ratio of births to the proportion of females between the ages of 15–45, and it is shown that as compared with the corresponding rate for England and Wales it is materially lower.

The low death-rate, which has been chiefly noticeable during the last three years, is maintained.

An instructive analysis of the vital statistics relating to three social grades of the population of Willesden is given. (This is entered into more fully earlier in this report.)

Much valuable work has been carried out in the prevention of infantile mortality, through the visitation of houses where births have occurred by female inspectors, the value of whose services may well be gauged by the results in this district.

No epidemic outbreak of scarlet fever or diphtheria is reported.

In connection with non-notifiable infectious disease, much knowledge as to its occurrence has been gained by means of notifications made by the teachers and attendance officers connected with the public elementary schools. In half of such cases no medical practitioner was in attendance. The results of investigation by the sanitary staff of cases of measles and whooping cough notified in this way are given at length.

The need of new by-laws in regard to dairies, cowsheds, and milk-shops is pointed out. As regards the slaughter-houses it is said that they are all badly situated, and it is added that proper inspection of the meat supply can only be carried out in a public abattoir.

The requirements which must be complied with in order that owners of houses may obtain certificates under the Customs and Inland Revenue Acts are set out.

Much nuisance from smoke from the shaft of an electric generating station arose early in the year. As the result of proceedings this has been abated.

Details are given of the sanitary work carried out during the year.

WOOD GREEN URBAN DISTRICT.

Medical Officer of Health, G. H. Conolly, M.R.C.S.

Area in acres	1,625
	<i>Census, 1901. Estimated, 1905.</i>
Population	34,233 43,150
Birth-rate (1905)	26·8
Average birth-rate (1895–1904)	28·8
Death-rate (1905)	10·0
Average death-rate (1895–1904)	11·8
Zymotic death-rate (1905)	1·0
Infantile mortality (1905)	84
Average infantile mortality (1895–1904)	139

Correction has been made in the rates for 1905 by including 73 deaths of residents occurring outside the district, and excluding 6 deaths of non-residents.

The following matters in this report may be referred to—

A well marked decrease during 1905 in the death-rate of children under 1 year of age. A weekly list of births is now obtained, and steps are taken to instruct parents as to the care of their infants.

An increase as compared with the previous year in the number of cases of scarlet fever and enteric fever, but a decrease in diphtheria.

The completion of arrangements with the Borough of Hornsey for receiving cases of infectious disease at the hospital of the latter body. This hospital is to be enlarged for this purpose, and Wood Green has put aside the proposal to build a separate hospital. Where possible a charge will be made to parents for treatment, but each case will be inquired into before this is done.

HENDON RURAL DISTRICT.

Medical Officer of Health, B. Campbell Gowan, M.R.C.S.,
L.R.C.P.

Area in acres,	11,321
<i>Census, 1901. Estimated, 1905.</i>	
Population	8,647 11,108
Birth-rate (1905)	18·2
Average birth-rate (1895-1904)..	21·3
Death-rate (1905)	8·7
Average death-rate (1895-1904)	9·8
Zymotic death-rate (1905)	0·2
Infantile mortality (1905)	44
Average infantile mortality (1895-1905)	97

Correction is made by the inclusion of 18 deaths of residents which occurred outside the district and exclusion of 3 deaths of non-residents.

Attention is again directed to the low and decreasing birth-rate of the district.

There was an increase during the year in the number of cases of infectious disease notified, due to small separate outbreaks of diphtheria in the parishes of Little Stanmore and Harrow Weald.

Three cases of enteric fever are reported, one probably due to contaminated fruit and one to oysters.

In connection with gipsy encampments it is reported that in some instances the aid of the police had to be obtained in order to remove them from the district. In three instances the van travellers had “commenced to lay down pipe drains to carry off their sewage into the public ditch.”

A Local Government Board Inquiry was held during the year in connection with an application for a loan for extension of the sewage farm at Great Stanmore.

Details are given of the sanitary work carried out during the year.

SOUTH MIMMS RURAL DISTRICT.

Medical Officer of Health, W. Gruggen, L.R.C.P., M.R.C.S.

Area in acres	6,105
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	2,671 2,784
Birth-rate (1905)	24·0
Average birth-rate (1895-1904)..	28·0
Death-rate (1905).. . . .	14·7
Average death-rate (1895-1904)	13·4
Zymotic death-rate (1905) .. .	1·1
Infantile mortality (1905) .. .	149
Average infantile mortality (1895-1904)	104

Correction has been made (1905) by excluding the deaths of three non-residents and including ten deaths of residents registered outside the District.

There is a marked increase in the infantile mortality but the figures on which the rate is based are too small to be reliable.

The need of isolation hospital accommodation is again reported.

The system of sewerage is stated to be satisfactory.

It is recommended that new regulations under the Dairies, Cowsheds, and Milkshops Order be made, and that the services of a veterinary surgeon be engaged when necessary.

STAINES RURAL DISTRICT.

Medical Officer of Health, C. Dwight Morris, M.R.C.S.,
L.R.C.P.

Area in acres.. ..	18,035
<i>Census, 1901. Estimated, 1905.</i>	
Population ..	18,095 19,919
Birth-rate (1905)	28·8
„ (1904)	28·2
Death-rate (1905).. ..	11·5
„ (1904).. ..	17·0
Zymotic death-rate (1905)	1·2
Infantile mortality (1905)	102
„ (1904)	164

The parish of Feltham was separated from Staines Rural District in April, 1904, and figures for the area as it now is are not available for earlier years.

The workhouse of the Staines Union is situated in the district, and correction has been made in the death-rate by the exclusion of deaths of 19 non-residents and the inclusion of 11 deaths of residents which occurred outside the district.

The number of notifications of infectious disease (exclusive of chicken-pox) was the lowest recorded for fourteen years. Two cases of small-pox, not having any connection with each other, occurred, and the advantage of having hospital accommodation for them was felt.

Measles was epidemic in two parishes.

The need of isolation hospital accommodation for ordinary infectious complaints is commented on, and it is stated no progress has been made in connection with the proposal to take action in the matter jointly with other adjoining authorities. This matter is the subject of correspondence between the County Council and the district authorities concerned.

The endeavour to obtain a more satisfactory supply of water for the hamlet of Poyle has not yet been successful, but negotiations are proceeding on the matter with the Slough Water Company. Many wells apparently still exist throughout the district.

The need of mortuary accommodation in certain villages (Harlington, Harmondsworth, Bedfont and Cranford) is again referred to.

No drainage works have been carried out during the year except in the village of Sipson, but what has been done here, it is stated, is not effective.

A large amount of sanitary work, it is said, has been carried out by the inspector.

UXBRIDGE RURAL DISTRICT.

Medical Officer of Health, A. Charpentier, M.D., D.P.H.

Area in acres	..	..	..	23,415.
	<i>Census, 1901.</i>		<i>Estimated, 1905.</i>	
Population	..	11,501		12,311
Birth-rate (1905)	..	..	..	29·7
Death-rate (1905)	..	..	..	13·0
Zymotic death-rate (1905)		..	..	1·2
Infantile mortality (1905)		..	..	76

In the above rates correction is made by excluding the deaths of 38 non-residents and by including 9 deaths of residents which occurred outside the district. Owing to the fact that two parishes, viz., Hayes and Ruislip-Northwood, originally part of the rural district, have now become separate urban districts, the statistics for previous years are not available.

The subjects chiefly referred to are—

The prevalence of scarlet fever at Harefield, due to an unrecognized case.

The occurrence of seven cases of enteric fever, mostly at Yiewsley, where it is said the disease is usually present owing to persons drinking unfiltered river water.

The occurrence of cases of smallpox at the workhouse.

TABLES.

COUNTY OF MIDDLESEX.—
VITAL STATISTICS OF THE DISTRICTS

1	2	Births.		Total Deaths in the	
		Number.	Rate per 1,000.	Under 1 Year of Age.	
				Number.	Rate per 1,000 Births registered.
5	6				
<i>Urban.</i>					
Acton	50,000	1,527	30·5	162	106
Brentford	15,762	530	33·6	61	115
Chiswick	33,160	947	28·5	102	107
Ealing (<i>Borough</i>) ..	46,000	1,072	23·3	109	101
Edmon- { District ..	54,606	1,947	35·6	250	128
ton { Institutions ² ..	2,152				
Enfield	51,315	1,357	26·4	159	117
Feltham	5,281	176	33·3	26	147
Finchley	28,716	743	25·9	68	91
Friern { District ..	10,470	291	27·7	24	82
Barnet { Asylum ¹ ..	2,426				
Greenford	1,100	19	17·2	1	52
Hampton	7,500	231	30·8	20	86
Hampton Wick ..	2,606	37	14·2	4	108
Hanwell	19,428	510	28·2	53	103
Harrow	13,000	313	24·0	18	57
Hayes	3,000	98	32·6	6	61
Hendon { District ..	25,488	708	27·7	82	115
{ Institutions ³ ..	655				
Heston & Isleworth ..	35,060	1,030	29·3	126	127
Hornsey (<i>Borough</i>) ..	85,213	1,567	18·3	106	67
Kingsbury	800	18	22·5	2	111
Ruislip-Northwood ..	4,515	115	25·4	8	69
Southall- { District ..	17,712	576	32·5	58	100
Norwood { Asylum ¹ ..	2,849				

¹ London County Lunatic Asylums (Colney Hatch and Hanwell).

² The Strand Union Workhouse and Edmonton Union Workhouse, in which sick persons from outside districts are lodged.

³ Cleveland Street Sick Asylum (Strand district) and Hendon Union Workhouse, in which sick persons from outside districts are lodged.

TABLE I.

IN THE COUNTY OF MIDDLESEX, 1905.

Registered District.		Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.	
At all Ages.					Number.	Rate per 1,000.
Number.	Rate per 1,000.					
7	8	9	10	11	12	13
537	10·7	27	1	92	628	12·5
208	13·1	..	..	70	278	17·6
357	10·7	7	7	80	430	12·9
435	9·4	35	..	78	513	11·1
868	15·2	304	248	108	728	13·3
532	10·6	60	12	50	570	11·1
60	11·2	..	..	11	71	13·4
266	9·3	19	11	30	285	9·9
298	23·1	203	203	17	112	10·6
10	9·0	2	2	2	10	9·0
79	10·5	6	3	13	89	11·8
20	7·6	..	2	4	22	8·4
140	7·2	2	3	24	161	8·2
104	8·0	13	1	19	122	9·3
34	11·3	2	0	4	38	12·6
419	16·0	148	119	25	300	11·7
675	19·2	288	223	23	475	13·5
607	7·1	17	12	101	696	8·1
6	7·5	..	..	3	9	11·2
35	7·7	6	6	3	32	7·0
406	19·7	247	247	25	184	10·3

COUNTY OF MIDDLESEX.—
VITAL STATISTICS OF THE DISTRICTS IN THE

1	Population estimated to Middle of 1905.	Births.		Total Deaths in the	
		Number.	Rate per 1,000.	Under 1 Year of Age.	
				Number.	Rate per 1,000 Births registered.
2	3	4	5	6	
<i>Urban—continued.</i>					
Southgate	22,400	463	20·6	36	77
Staines	6,885	157	22·8	13	82
Sunbury	4,750	138	29·0	17	123
Teddington	16,350	381	23·3	42	110
Tottenham	124,126	3,588	28·9	419	116
Twickenham	26,000	713	27·0	91	127
Uxbridge	9,165	262	28·5	29	110
Wealdstone	9,652	262	27·1	23	87
Wembley	5,895	156	26·4	21	134
Willesden	140,758	4,201	29·8	463	110
Wood Green	43,150	1,158	26·8	96	84
<i>Rural.</i>					
Hendon	11,108	203	18·2	9	44
South Mimms	2,784	67	24·0	10	149
Staines	19,919	574	28·8	59	102
Uxbridge	12,311	366	29·7	28	76

TABLE I.—*continued.*COUNTY OF MIDDLESEX, 1905—*continued.*

Registered District.		Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of residents registered in Public Institutions beyond the District.	Net Deaths at all Ages belonging to the District.	
At all Ages.					Number.	Rate per 1,000.
Number.	Rate per 1,000.					
7	8	9	10	11	12	13
161	7.1	13	13	29	178	7.9
73	10.6	4	..	3	76	11.0
52	10.9	..	..	6	58	12.2
172	10.5	8	5	21	188	11.5
1,564	12.6	325	231	222	1,555	12.5
301	11.0	14	..	43	344	13.4
132	14.4	5	1	28	159	17.3
77	8.0	..	..	9	86	8.9
46	7.8	..	3	12	55	9.3
1,572	11.2	223	10	182	1,744	12.4
368	8.5	15	6	73	435	10.0
82	7.3	1	1	18	97	8.7
34	12.2	5	3	10	41	14.7
238	11.9	44	19	11	230	11.5
190	15.4	56	38	9	161	13.0

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COUNTY OF MIDDLESEX.—

CAUSES OF DEATH RECORDED IN

				Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Membranous Croup.	Croup.
<i>Urban.</i>									
- Acton	4	2	10	4	..
Brentford	4	2	11	1
Chiswick	3	5	5	1
Ealing (<i>Borough</i>)	13	2	5	6	..
Edmonton	27	6	30	4	1
Enfield	12	4	15	2	..
Feltham	1	..	..
Finchley	8	2	..
Friern Barnet..	2	..	4	2	1
Greenford
Hampton	1	..	3	7	..
Hampton Wick	1	..
Hanwell	2	2	..
Harrow	9	..	..
Hayes	1
Hendon	14	3	13	..	..
Heston and Isleworth	8	13	1
Hornsey (<i>Borough</i>)
Kingsbury
Ruislip-Northwood
Southall-Norwood	1	3	2	..
Southgate	2	..	2	4	1
Staines	3	..	..	..	..
Sunbury	1	1	1	1	..
Teddington
Tottenham	9	5	58	17	..
Twickenham	6	1	..
Uxbridge	3	..	4	1	1
Wealdstone	5	..	7	..	..
Wembley	1	..	4	..	..
Willesden	51	5	67	14	2
Wood Green	6	1	17	8	..
<i>Rural.</i>									
Hendon	2	..
South Mimms	2	1	1
Staines	2	..	4	6	1
Uxbridge*	6	..	1	2	1

* The deaths of non-residents dying in the

TABLE II.

THE DISTRICT REPORTS FOR 1905.

Fevers.			Epidemic Influenza.	Cholera.	Plague.	Diarrhoea.	Enteritis.	Puerperal Fever.	Erysipelas.
Typhus.	Enteric.	Other continued.							
..	6	..	7	..	..	40	17	2	2
..	1	..	1	..	..	14	3	..	1
..	1	..	..	..	..	36	6	..	1
..	3	..	5	..	..	18	12	..	..
..	6	1	9	..	..	56	10	2	1
..	..	..	3	..	..	38	3	2	3
..	..	..	..	..	..	8	2	..	..
..	1	..	4	..	..	7	2	..	..
..	1	..	..	..	..	3	4	..	..
..
..	..	..	..	..	..	4	2	..	1
..	..	..	..	..	..	1	..	..	..
..	..	..	2	..	..	7	10	..	..
..	1	..	2	..	..	1	2	..	..
..
..	..	..	3	..	..	16	..	1	..
..	..	..	5	..	..	43	1	..	1
..
..	..	..	1	..	..	2	..	..	..
..	..	..	3	..	..	11	11	..	2
..	1	..	6	..	..	8	1	1	1
..	..	..	1	..	..	1	..	..	..
..	1	..	..	..	..	..	..	..	..
..	..	..	4	..	..	14	1	..	2
..	6	..	10	..	..	39	52	2	6
1	1	..	..	..	..	11	..	..	..
..	..	..	..	..	..	6	..	..	1
..	..	..	..	..	..	1	..	..	..
..	1	..	..	..	..	1	1	1	..
..	12	..	25	..	..	100	21	9	4
..	1	..	6	..	..	13	5	3	..
..	1	..	1	..	..	..	..	..	..
..	..	..	..	..	..	..	2	..	..
..	..	..	2	..	..	12	10	..	1
..	..	..	..	..	..	9	1	..	..

district have apparently not been excluded.

COUNTY OF MIDDLESEX.—

CAUSES OF DEATHS RECORDED IN THE

			Other Septic Diseases.	Phthisis (Pulmonary Tuberculosis).	Other Tubercular Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia.
<i>Urban.</i>								
Acton .. ..	..	..	2	43	31	35	45	68
Brentford .. ..	..	..	..	29	15	12	31	18
Chiswick .. ..	..	..	..	41	14	33	37	28
Ealing (<i>Borough</i>) ..	..	..	5	37	13	41	32	41
Edmonton .. ..	..	..	5	42	34	31	35	79
Enfield .. ..	..	..	3	45	17	34	46	59
Feltham .. ..	..	..	..	3	1	9	1	4
Finchley .. ..	..	..	12	20	10	23	17	23
Friern Barnet .. ..	..	..	5	7	2	10	7	7
Greenford .. ..	..	..	..	..	..	1	..	..
Hampton .. ..	..	..	..	10	1	1	4	9
Hampton Wick .. ..	..	..	..	1	..	..	4	..
Hanwell .. ..	..	..	1	10	7	11	13	14
Harrow .. ..	..	..	..	6	3	8	..	..
Hayes .. ..	..	..	..	3	2	5	1	2
Hendon .. ..	..	..	1	12	10	26	24	26
Heston and Isleworth ..	..	..	12	32	10	24	31	34
Hornsey (<i>Borough</i>) ..	..	..	..	..	1	1	..	4
Kingsbury .. ..	..	..	..	3	..	2	3	1
Ruislip-Northwood ..	..	..	3	12	10	7	5	6
Southall-Norwood ..	..	..	..	9	3	12	9	11
Southgate .. ..	..	..	..	2	2	8	9	4
Staines .. ..	..	..	1	5	4	3	3	4
Sunbury .. ..	..	..	5	23	3	14	9	18
Teddington .. ..	..	..	6	85	96	95	100	140
Tottenham .. ..	..	..	3	19	8	31	23	13
Twickenham .. ..	..	..	5	16	5	11	19	10
Uxbridge .. ..	..	..	..	8	1	5	6	13
Wealdstone .. ..	..	..	..	6	..	3	4	2
Wembley .. ..	..	..	15	146	48	115	107	147
Willesden .. ..	..	..	..	28	6	36	44	27
Wood Green .. ..	..	..	..	..	..	..	..	..
<i>Rural.</i>								
Hendon .. ..	..	..	1	6	3	15	6	8
South Mimms .. ..	..	..	..	2	1	2	1	2
Staines .. ..	..	..	..	16	7	15	17	12
Uxbridge* .. ..	..	..	2	16	2	19	23	9

* The deaths of non-residents dying in the

TABLE II.—*continued.*DISTRICT REPORTS FOR 1905—*continued.*

Pleurisy.	Other Diseases of Respiratory Organs.	Alcoholism, Cirrhosis of Liver.	Veneral Diseases.	Premature Birth.	Diseases and Accidents of Parturition.	Heart Diseases.	Accidents.	Suicides.	All other causes.
..	7	11	1	24	4	48	16	8	191
..	3	3	..	13	4	35	13	3	61
..	..	8	..	11	..	46	7	2	145
3	5	8	..	19	3	36	8	4	194
5	4	10	1	37	3	40	22	5	222
2	3	5	..	25	..	40	20	3	186
..	..	1	..	7	..	6	1	1	26
..	3	5	2	19	1	35	4	2	85
1	2	..	..	8	..	10	..	..	36
..	1	..	..	..	..	1	..	..	7
..	..	2	..	1	1	9	3	1	29
..	..	1	..	1	..	3	2	..	8
1	..	1	..	14	..	16	2	2	46
..	14	2	..	3	1	12	10	1	47
..	2	1	..	4	..	5	1	1	10
..	..	4	..	16	6	23	5	2	95
..	1	12	1	19	3	40	8	13	163
..	..	..	..	..	..	..	..	..	3
..	..	..	..	1	..	1	..	..	18
..	..	4	1	9	3	24	9	3	55
..	2	2	..	6	..	16	5	3	73
..	..	..	..	2	1	4	3	..	36
1	..	..	..	4	..	6	2	..	20
1	1	7	2	8	1	20	5	3	47
6	23	16	2	64	6	125	25	9	553
1	..	1	1	22	6	33	7	3	153
..	1	3	1	3	..	20	5	..	44
..	..	..	..	5	2	9	2	..	22
..	1	1	..	6	..	5	3	..	15
4	16	29	10	72	8	142	51	12	512
2	..	6	3	27	3	36	8	5	144
..	..	1	..	2	1	11	..	2	37
1	1	1	..	1	..	2	2	..	19
..	..	2	..	8	..	23	5	4	83
1	..	4	..	4	1	14	9	1	74

district have apparently not been excluded.

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

NAME OF SANITARY DISTRICT.	Inspections.						Notices.			
	Number of Premises In- spected on Complaint.	Number of Premises In- spected in connection with Infectious Diseases.	Number of Premises under Periodical Inspection.	Houses Inspected from House-to-House.	Total Number of Houses, Premises, &c., Inspected.	Cautionary Notices Given.	Statutory Orders Issued.	Summonses Served.	Convictions Obtained.	
<i>Urban.</i>										
Acton ..	225	237	86	557	1,587	998	657	20	19	
Brentford ..	52	168	130	24	866	85	371	..	..
Chiswick ..	149	332	203	2,250	2,934	54	1,200	5	5	
Ealing (<i>Borough</i>)	136	260	252	183	1,228	348	68	..	..
Edmonton ..	690	416	275	1,036	2,417	2,577	665	48	48	
Enfield ..	53	247	346	724	2,100	889	249	2	2	
Feltham ..	24	9	..	301	325	68	35	..	..
Finchley ..	164	111	..	268	1,206	319	180	..	..
Friern Barnet ..	45	58	136	128	309	230	28	7	7	

Greenford..	..	65	2	13	..	80	47	11	1	1
Hampton ..	..	38	73	51	43	468	134	8	5	5
Hampton Wick ..	..	6	12	25	35	327	4	4	..	..
Hanwell ..	..	54	100	77	761	1,114	3	140	..	..
Harrow ..	..	93	34	107	51	285	185	12	..	..
Hayes ..	..	2	40	48	128	200	16	..	..	..
Hendon ..	..	69	140	186	132	644	343	31	1	1
Heston and Isleworth	..	101	200	330	814	10,559	3,211	341	4	4
Hornsey (<i>Borough</i>)	..	238	438	95	350	2,730	921	390	..	..
Kingsbury ..	..	6	4	64	40	104	64	29	5	2
Ruislip-Northwood	..	118	4	40	30	187	60	23	1	1
Southall-Norwood	..	57	83	105	186	997	244	15	..	..
Southgate ..	..	61	122	110	187	665	98	15	..	..
Staines ..	..	..	24	..	6	151	42	51	..	..
Sunbury ..	..	47	43	172	1,119	1,381	32	2	..	..
Teddington	..	53	28	137	70	3,095	87	29	..	..
Tottenham	..	447	1,376	873	2,063	4,759	2,162	560	7	6
Twickenham	..	349	70	256	1,672	4,023	126	276	1	1
Uxbridge ..	..	160	90	1,200	460	2,600	210	56	..	..
Wealdstone	..	30	37	63	32	162	23	6	..	..
Wembley ..	..	32	..	..	50	600	70	15	8	8
Willesden	..	695	819	141	437	6,555	1,066	453	59	54
Wood Green	..	106	200	271	236	1,462	425	326	14	13
<i>Rural.</i>										
Hendon ..	..	34	44	..	688	1,017	309	9	..	..
South Mimms	..	6	7	..	..	236	..	26	..	..
Staines ..	..	20	47	560	1,463	2,585	380	155	2	2
Uxbridge ..	..	17	62	44	388	511	14	32	1	1

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

NAME OF SANITARY DISTRICT.	Dwelling Houses.					Houses let in separate Dwel- lings or Lodgings.		Common Lodging Houses.		Canal Boats used as Dwellings.	
	Houses, Premises, &c., Cleansed, Repaired, &c.	Closed as Unfit for Habita- tion.	Re-opened after Repairs, Alterations, &c.	Demolished.	Illegal Underground Dwellings Vacated.	Number Registered under By-laws.	Number of Contra- ventions.	Number Registered under By-laws.	Number of Contra- ventions.	Number Registered under the Acts.	Number of Contra- ventions.
<i>Urban.</i>											
Acton ..	510	..	..	..	1	..	..	..	..	..	..
Brentford..	155	..	..	..	..	..	..	..	..	304	..
Chiswick ..	379	..	..	..	..	59	67	4	..	..	..
Ealing (<i>Borough</i>)	409	..	..	..	..	..	..	..	..	..	..
Edmonton ..	201	9	..	8	..	..	..	1	..	..	5
Enfield ..	251	2	..	..	..	..	..	..	..	..	..
Feltham ..	12	..	..	..	..	..	..	..	..	..	..
Finchley ..	2	..	..	..	..	..	..	..	..	..	..
Friern Barnet ..	236	..	..	..	..	..	..	..	..	..	..

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

NAME OF SANITARY DISTRICT.	Movable Dwellings, Caravans, Tents, &c.			Workshops and Workplaces.		Laundries.		Bake- houses.		Slaughter-houses.		Cow- sheds.	
	Number Observed during the Year.	Number of Nuisances therefrom Abated.	Number Removed from District.	Number in District.	Contraventions of Factory Acts.	Number in District.	Contraventions of Factory Acts.	Number in District.	Contraventions of Factory Acts.	Number on Register.	Contraventions of By-laws.	Number on Register.	Contraventions of Regulations.
<i>Urban.</i>													
Acton ..	10	..	10	375	32	269	20	26	..	4	1	3	..
Brentford ..	25	4	..	66	34	8	1	12	2	7	1	3	..
Chiswick ..	5	..	5	206	23	20	1	15	2	7	1	2	..
Ealing (<i>Borough</i>) ..	25	..	25	179	..	..	..	26	..	5	..	8	..
Edmonton..	1,072	..	..	178	1	32	3	32	3	6	..	4	..
Enfield ..	62	..	62	151	32	7	2	38	10	16	8	32	15
Feltham ..	8	8	8	..	..	..	..	3	..	3	..	..	..
Finchley ..	..	..	..	136	68	18	7	17	8	11	..	10	1
Friern Barnet ..	43	4	43	29	..	5	..	7	2	2	..	5	..
Greenford..	..	..	..	..	..	..	..	..	..	..	..	..	..

Hampton ..	..	..	..	..	..	28	9	5	..	9	5	5	1	4	8	5
Hampton Wick	..	..	15	..	..	15	..	..	..	2	..	1	1	..	1	1
Hanwell ..	..	..	30	..	..	30	..	14	1	10	10	4	..	2	4	..
Harrow ..	..	..	23	10	10	23	10	2	..	2	2	5	3	5	10	3
Hayes ..	..	..	..	..	..	..	..	1	..	5	..	..	..	..	3	..
Hendon ..	..	..	144	12	12	144	12	61	2	13	3	8	13	2	21	7
Heston and Isleworth	..	..	209	73	73	209	73	14	11	32	41	14	7	6	19	..
Hornsey (<i>Borough</i>)	..	..	297	147	147	297	147	27	33	40	31	10	..	9	3	..
Kingsbury ..	..	..	2	..	..	2	..	..	..	1	..	..	1	..	1	1
Ruislip-Northwood	..	..	7	..	..	7	..	2	..	3	..	3	1	..	14	1
Southall-Norwood ..	..	..	32	4	4	32	4	5	..	14	..	6	1	1	7	1
Southgate ..	..	..	37	23	23	37	23	..	..	15	..	8	..	..	10	..
Staines ..	..	..	86	3	3	86	3	5	..	11	1	3	..	..	11	..
Sunbury ..	..	..	3	..	..	3	..	5	..	5	..	2	..	..	7	..
Teddington ..	..	..	24	10	10	24	10	7	2	12	..	6	..	..	9	16
Tottenham ..	..	..	465	9	9	465	9	29	3	55	15	17	3	..	21	3
Twickenham ..	..	..	168	27	27	168	27	46	7	18	1	10	..	..	6	..
Uxbridge ..	..	..	44	13	13	44	13	7	2	13	..	6	..	1	12	..
Wealdstone ..	..	..	34	2	2	34	2	2	..	7	2	3	..	4	4	..
Wembley ..	..	..	13	1	1	13	1	3	1	5	..	6	1	None in force	11	1
Willesden ..	..	..	446	162	162	446	162	347	143	62	21	9	5	4	6	5
Wood Green	..	..	127	..	..	127	..	14	..	22	..	5	1	..	4	1
<i>Rural.</i>																
Hendon ..	..	..	15	6	6	15	6	..	..	10	5	9	10	3	21	10
South Mimms ..	..	..	..	..	..	..	..	1	..	2	..	2	..	..	6	..
Staines ..	..	..	..	..	..	..	..	..	..	20	..	..	..	..	35	..
Uxbridge ..	..	..	28	..	..	28	..	8	..	13	..	..	..	..	27	..

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

NAME OF SANITARY DISTRICT.	Dairies and Milkshops.		Unsound Food.			Adulterated Food.		Offensive Trades.		Water Supply and Water Service			
	Number on Register.	Contraventions of Regulations.	Animals seized.	Articles or parcels seized.	Articles or Parcels surrendered.	Samples taken.	Found adulterated.	Number of Premises in District.	Contraventions of By-laws.	Wells.			Percentage of Houses Supplied from Public Water Service.
										New Sunk.	Cleansed, Repaired, &c.	Closed as Polluted.	
<i>Urban.</i>													
Acton ..	43	..	1	29	..	118	9	2	1	..	..	..	100
Brentford ..	46	..	..	1	11	..	..	1	..	..	..	..	Nearly all.
Chiswick ..	28	2	..	1	3	116	9	..	..	..	..	..	100
Ealing (<i>Borough</i>) ..	34	..	..	4	3	..	..	..	..	..	..	1	..
Edmonton ..	60	..	..	32	..	..	..	..	..	..	2	..	99·3
Enfield ..	76	27	..	..	11	..	..	..	..	..	6	..	..
Feltham ..	2	..	..	1	1	..	..	..	..	..	..	8	75
Finchley ..	21	3	..	11		6	..	..	..	..	..	1	Nearly 100.
Friern Barnet ..	14	..	..	..	..		..	..	..	..	..	..	100

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

Water Supply and Water Service.									
NAME OF SANITARY DISTRICT.	Cisterns.			Draw-Taps Removed from Cisterns to Mains.	Percentage of Houses Supplied on Constant System.	Water Closets.			Percentage of Houses Provided with Water Closets.
	New, Provided.	Cleaned, Repaired, Covered, &c.	Overflow Pipes Dis- connected from Drains.			New Constructed.	No. of Water Closets sub- stituted for Dry Recep- tacles.	Repaired, Supplied with Water, or otherwise Improved.	
<i>Urban.</i>									
Acton ..	7	97	..	14	100	197	..	334	100
Brentford ..	7	131	..	14	100	..	..	106	100
Chiswick ..	..	5	..	123	100	62	..	106	100
Ealing (<i>Borough</i>) ..	2	16	..	17	..	..	1	250	..
Edmonton ..	..	143	..	6	99·3	..	..	262	99·9
Enfield ..	14	86	..	..	..	5	4	469	..
Feltham ..	..	..	..	..	..	42	18	..	75
Finchley ..	9	47	..	..	..	175	..	170	Nearly 100
Friern Barnet ..	23	71	..	..	..	16	..	47	99
Greenford ..	..	4	..	..	100	10	7	..	38

Hampton ..	..	1	14	..	..	99	1	1	47	99
Hampton Wick ..	..	..	2	..	..	All	..	..	2	..
Hanwell ..	..	..	2	..	..	99·5	..	..	70	99·5
Harrow ..	..	..	6	..	2	90	..	..	52	99
Hayes ..	..	..	..	..	..	..	13	..	..	50
Hendon ..	..	2	22	..	4	99	..	..	125	99
Heston and Isleworth ..	..	3	85	..	1	100	..	..	311	98·2
Hornsey (<i>Borough</i>) ..	..	6	51	..	6	100	..	..	247	100
Kingsbury ..	..	..	..	..	..	94	..	..	..	82
Ruislip-Norwood ..	..	..	..	..	..	80	..	..	..	80
Southall-Norwood ..	..	..	..	..	..	100	..	..	41	Nearly all.
Southgate ..	1	1	14	..	16	90	1	1	56	99
Staines ..	2	2	3	..	..	90	..	..	..	90
Sunbury ..	..	..	..	..	..	Over 90	..	..	35	Over 90
Teddington ..	5	..	34	..	2	100	..	..	116	..
Tottenham ..	..	..	234	..	..	..	..	..	453	100
Twickenham ..	53	..	91	..	..	99·5	1	1	155	99·5
Uxbridge ..	..	..	..	..	..	All except 6	..	..	102	Practically all.
Wealdstone ..	..	..	4	1	..	All	..	..	3	All.
Wembley ..	..	..	1	..	1	All	1	1	..	99
Willesden..	36	..	289	..	240	All	..	..	160	All.
Wood Green ..	..	..	54	..	..	100	..	..	83	100
<i>Rural.</i>										
Hendon ..	..	..	..	..	..	..	1	1	97	..
South Mimms ..	..	..	..	..	..	None	..	..	34	About 95
Staines ..	81	81	..	81	..	..	95	95	23	..
Uxbridge ..	..	..	..	..	..	70	..	..	4	..

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

NAME OF SANITARY DISTRICT.	Drainage and Sewerage.								Disinfection.					
	Drains.							Cesspools.		Percentage of Houses Draining into Sewers.	Rooms Disinfected.	Rooms Stripped and Cleansed.	Articles Disinfected or De- stroyed.	
	Examined, Tested, Exposed, &c.	Unstopped, Repaired, Trapped, &c.	Waste Pipes, Rain Water Pipes, Disconnected, Repaired, &c.	Soil Pipes and Drains Ventilated.	Disconnecting Traps or Chambers Inserted.	Reconstructed.	Rendered Impervious, &c.	Abolished, and Drain Connected to Sewer.						
<i>Urban.</i>														
Acton ..	270	1,033	299	104	128	97	2	3	100	376	17	51 tons.		
Brentford ..	256	172	70	57	72	97	..	..	nearly all	161	76	1,670
Chiswick ..	422	95	45	46	..	83	..	..	100	107	53	11
Ealing (<i>Borough</i>) ..	..	98	62	109	110	85	4	..	..	232	22	3,828
Edmonton..	462	335	35	77	86	78	..	1	99·5	368	166	6,122		
Enfield ..	214	347	5	52	29	66	265	5	..	222	59	2,878		
Feltham ..	66	..	2	21	..	66	40	..	..	7	..	..
Finchley ..	111	101	128	124	142	105	5	..	..	156	9	2,734
Friern Barnet ..	53	110	164	28	51	54	..	2	99	63	40	750		
Greenford..	19	23	2	3	2	6	19	..	..	5	5	..
Hampton ..	8	100	29	10	28	13	17	13	92	121	99	48		

COUNTY OF MIDDLESEX.—SANITARY WORK, 1905.

NAME OF SANITARY DISTRICT.	Dust.			Sundry Nuisances Abated.						
	New Bins provided.	Periodical frequency of Dust Removal.	Number of Complaints of Non-removal received.	Overcrowding.	Smoke.	Accumulations of Refuse.	Foul Ditches, Ponds, &c., and Stagnant Water.	Foul Pigs and other Animals.	Dampness.	Other Nuisances.
<i>Urban.</i>										
Acton ..	159	Weekly	4	10	4	83	2	17	65	210
Brentford ..	101	ditto	25	15	11	67	..	..	40	..
Chiswick ..	245	ditto	119	8	1	30	1	41	217	..
Ealing (<i>Borough</i>) ..	37	ditto	70	5	1	53	7	32	..	7
Edmonton ..	151	ditto	36	21	4	37	5	22	453	334
Enfield ..	155	Greater part weekly	59	23	6	59	..	30	490	25
Feltham ..	..	3 days per week	..	..	..	14	2	4	5	53
Finchley ..	87	Weekly	..	2	2	19	5	10	131	..
Friern Barnet ..	200	ditto	21	2	..	14	6	150	35	94

APPENDIX.

REPORT by the Medical Officer of the Isolation Hospital and the County Medical Officer to the Uxbridge Joint Hospital Board on the existing isolation hospital accommodation (not including Smallpox) for the combined districts of Uxbridge (urban), Uxbridge (rural), Hayes (urban), and Ruislip-Northwood (urban).

December, 1905.

To the Uxbridge Joint Hospital Board.

GENTLEMEN,

We beg to present our report on the Joint Hospital in Kingston Lane, Hillingdon East.

We have divided our report into two parts, viz. :—

- A. An account of the existing hospital buildings and accommodation and their sufficiency or otherwise for the present needs of the district.
- B. An account of the alterations or additions which should be made with a view to efficiency.

Under these headings we deal separately with (1) the ward buildings ; (2) the administrative block ; and (3) the outbuildings.

A. THE EXISTING HOSPITAL AND ITS SUFFICIENCY.

A. (1) *The Ward Buildings.*

These consist of the following :—

(a) A brick building, containing two large and two small wards, used for the reception of Scarlet Fever cases.

The dimensions of each of the two large wards are 38 feet by 16 feet. Allowing a height of 13 feet, the cubic capacity of each of these wards is 7,904 feet, which would allow 4 beds in each.

The two small wards are 18 feet by 17 feet each. Allowing a height of 13 feet, the cubic capacity of each of these is 3,978 feet, which would accommodate 2 beds each.

Total accommodation, 12 beds.

(b) A galvanized iron building used for patients suffering from diphtheria.

In this there are two wards, each measuring 27 feet by 22 feet, and allowing the same height as above, containing 7,722 cubic feet of space, or about sufficient for 4 beds each.

In addition there is a small room in this building, which can be used under special circumstances for one case.

Total accommodation, 9 beds.

(c) In addition to the above, use is made at the present time of part of an old wooden hospital building for accommodating cases convalescing from scarlet fever. This building, however, is worn out and not well suited for the purpose, and under these circumstances the number of beds, which can be accommodated here, should no longer be taken into account in arriving at a conclusion as to the present accommodation of the hospital.

The total bed accommodation is therefore 21 beds, but it is necessary to point out that in arriving at this total the fullest possible number of beds has been allowed to each ward. Indeed it will be seen from the above account that in each case the minimum cubic space per bed required in the Memorandum of the Local Government Board on Isolation Hospitals, viz., 2,000 cubic feet, is not attained.

To what extent does this provision satisfy the needs of the area served by the hospital?

There is no fixed standard which can be applied in arriving at a conclusion on this point. The answer depends on the circumstances of the area under consideration and especially upon the growth of its population, the housing of its inhabitants, and the intercommunication of the district with other places. The Local Government Board, in the Memorandum issued by them for the guidance of local authorities on the subject of Isolation Hospitals state that as a rough estimate "one bed for every thousand inhabitants is sometimes adopted, but in view of the diverse circumstances of different districts this cannot be regarded as a definite standard."

In the case of the area which is at present served by the Uxbridge Joint Hospital the following must be taken into consideration :—

(a) The estimated population in the middle of 1904 was 27,125, as compared with 25,803 at the census in 1901. The increase is therefore rapid, and there is every reason to expect that this will continue.

(b) The character of the population. Whilst a good deal of the district is of a residential character, a large portion of the population consists of a class which is unable to provide adequate isolation at home. It is not possible to give precise information bearing on the housing of the inhabitants, but the following figures from the Census of 1901 will be useful. In the area under consideration there were at that date 5,586 separate tenements, of which 1,827 or 32 per cent. consisted of tenements of four rooms or less than four rooms, and 65 per cent. of these 1,827 were occupied by a number of persons equal to one or more persons per room.

(c) The fact that in the report for 1904 of the Medical Officer of Health of the Rural District of Uxbridge attention is directed to the inadequacy of the accommodation, leading at times to overcrowding. It is stated that as many as 40 persons have been under treatment at one time. It should be observed that this probably occurred before Southall-Norwood separated from the hospital district and provided its own accommodation, but it is also necessary to note the fact that the combined estimated population, in 1904, of the present

hospital area was only some 9,000 less than the population enumerated in 1901 of this area and of Southall-Norwood combined (viz. 27,125 and 36,168).

(d) The need of accommodation for cases of typhoid fever (*see* Annual Report, 1903, Medical Officer of Health Uxbridge R.D.), and

(e) The increasing inter-communication with other parts by newly constructed railways and tramways, which increase the opportunities for the spread of infection.

Having in mind the above considerations, we cannot advise that in the case of this district the accommodation should be less than one bed per 1,000 inhabitants, and seeing that the population in the area is rapidly increasing, the proportion should be if anything in excess of 1 per 1,000 on the available estimated population (viz., that of 1904).

As regards the arrangement of the existing hospital buildings, it is necessary to draw attention to the fact that in connection with one of the end wards of the Scarlet Fever block there is a lavatory, bathroom and discharging room. The approach to these is directly out of the ward into the lavatory, and here are placed two water-closets. Owing to the absence of an intervening lobby provided with cross ventilation, it cannot be said that the ward is adequately secured from emanations from the closets. Further, it would be an improvement if the discharging room were approached otherwise than out of a ward.

A. (2). The Administrative Buildings.

At the present time the buildings which are in use for the purpose of the administration of the hospital consist of—

(1) A cottage used partly for residential purposes by some of the staff, and partly for kitchens, &c.

(2) Bedrooms for the nurses in two old wooden buildings, one of which has already been referred to as being partly utilized for the treatment of patients, viz., for convalescents from scarlet fever.

The inadequacy, inconvenience, and unsuitableness of the existing arrangements have before this been under the consideration of, and have been recognised by the Board in the past, and led to an application being made to the Local Government Board for a loan with a view to providing suitable accommodation. This loan, however, was not taken up owing to changes then pending in the constitution of the hospital area. In these circumstances it is not necessary to go into the matter in detail in order to show the necessity of providing a proper administrative block.

A. (3). The Out-offices.

These consist at the present time of a brick building containing a small laundry, an ambulance shed, and a dry heat disinfecting apparatus; a galvanised iron building used as part of the laundry; and a mortuary.

The laundry building (brick) is shored up and the portion which should serve as the laundry is not adequate.

The ambulance shed serves for the vehicle used in connection with the removal of cases to the smallpox hospital at Yeading, whilst the ambulance for other cases is kept on private premises. This is not a satisfactory arrangement.

The dry heat disinfecting apparatus is not utilised except as a chamber for fumigating clothing with formalin. Experiments have shown that gaseous disinfectants of this sort cannot be relied on in connection with disinfection of thick clothing (10th Annual Report of Medical Officer of Health of the County of London). To ensure satisfactory disinfection of bedding and other bulky articles, a steam apparatus is necessary.

B. WHAT ADDITIONS OR ALTERATIONS ARE NEEDED.

B. (1). *The Ward Buildings.*

From what has been said above it will be seen that there is need for an increase in the number of beds, and further, that need at times arises for the accommodation of cases of typhoid fever in addition to cases of scarlet fever and diphtheria.

An increase of 10 beds appears to be the minimum which can safely be recommended in view of all the facts of the case. This would give a total of 31 beds, or in other words a few beds in excess of 1 bed per 1,000

inhabitants on the estimated population in the middle of 1904 (nearly eighteen months ago). In view of the rapid increase which is taking place in the district there is little doubt that in a few years 31 beds would only be just sufficient, and indeed may again be under the proportion of 1 per 1,000. If, however, the provision of 10 additional beds be decided on, it could be made by the erection of one ward building consisting of two separate and distinct halves, each containing two wards, one with two beds and the other with three beds, placed on either side of a nurses' duty room. One half of this ward block could be utilized for typhoid fever cases when necessary, and at other times when not needed for this purpose might be very useful for accommodating cases about the diagnosis of which there is uncertainty, until the symptoms leave no doubt that the patient is suffering from scarlet fever, and can be passed into the scarlet fever ward. In the other half the beds could be allotted to cases of scarlet fever or diphtheria cases as thought fit.

A model plan of this suggested block is to be found in the 17th Annual Report of the Medical Officer of the Local Government Board, and a ward block on somewhat bigger scale but on the same plan may be seen at the Isolation Hospital of the Hendon Rural District Council at Stanmore.

Another way in which additional accommodation might be provided is by the erection of (1) a pavilion ward, on the lines shown in plan "C" of the latest Memorandum of the Local Government Board, to accommodate 8 or 10 beds; and (2) an isolation block shown in plan "B" in the same Memorandum. This would give an addition of 12 or

14 beds. The latter arrangement is preferable to the one given above, and in view of the rapid increase which is taking place in the district, it would probably in the long run prove to be the most economical.

Space for the above could be found, either in part or altogether, on the site of the present wooden buildings.

As regards any alteration in the existing ward buildings, viz., the brick building for scarlet fever cases, and the iron building for diphtheria cases, it is not desirable to make suggestions involving considerable structural alteration.

We have, however, drawn attention in the foregoing part of this report to the facts, that the entrance to the lavatory from one of the end wards of the scarlet fever block might be improved, and that the discharging room is approached from one of the wards through which patients from other wards have to pass.

It suggests itself to us that the simplest remedy for the above would be to separate entirely the lavatory, bathroom, and discharging room from the ward, by filling up the present doorway. If an entrance from the external air were then made at the end where the water-closets are placed, this series of rooms could be readily adapted for use as a discharge block for scarlet fever patients. This would deprive the existing scarlet fever block of a fixed bathroom, but the latter might be arranged for by fitting up a bathroom in that part of the building opposite the nurses' duty room, which at present contains two water-closets and a wash-up scullery. If this be not reasonably practicable, the following arrangement might be carried out. Remove the water-closets in the lavatory apartment

from the end ward, and provide a door to the external air. The bathroom would then be still available for the use of patients while in the hospital, whilst at the same time this series of rooms could be used as a discharging block without the necessity of patients about to be discharged having to pass through the ward.

If the latter course be adopted it would probably be desirable to provide a bathroom in connection with the large ward at the other end of this block, otherwise a movable bath should be reserved for this side.

B. (2) *The Administrative Buildings.*

This building should contain accommodation for the whole of the nursing staff and for the servants, a kitchen, dispensing and store rooms. Each nurse should have a separate bedroom, and we think eight nurses should be provided for. In addition there will have to be sleeping accommodation for the servants. We would draw attention to the following remark in the Memorandum of the Local Government Board, viz., "in any case the block should be so planned that it can be easily enlarged in the future, if necessary."

We are not able to say to what extent, if any, the present administrative cottage might be brought into use in connection with the new administration block, but it is possible that if the latter could be erected on that part of the site immediately behind the cottage (where the present laundry building stands), and if the structural stability of the cottage is satisfactory, it might be worked into the scheme.

B. (3) *The Out-offices.*

The laundry should contain a wash-house, drying closet and ironing room, and in part of the same building a steam disinfecting apparatus should be provided for infected articles, such as bedding, etc., which cannot be boiled. This apparatus should be one of the recognized forms. As a matter of detail, it may be well to have provided with this means of recording on a chart the exact operation which has been carried out in the case of each disinfection.

An ambulance shed should be provided for housing the ambulance on the premises.

The present mortuary will probably be sufficient as it is, unless it be determined that the administrative block should be placed on this side of the site.

We submit with this report a copy of the Memorandum of the Local Government Board on the provision of isolation hospital accommodation by local authorities. This is the Memorandum referred to in this report.

We are,

Gentlemen, etc.,

J. DAVIDSON,

Medical Officer of the Isolation Hospital.

C. W. F. YOUNG,

County Medical Officer.

HARRISON AND SONS,
PRINTERS IN ORDINARY TO HIS MAJESTY,
ST. MARTIN'S LANE, W.C.

C.M.O.D.
1906

County Council of Middlesex.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER OF HEALTH

FOR THE

YEAR 1905,

INCLUDING A

SUMMARY OF THE ANNUAL REPORTS OF THE
DISTRICT MEDICAL OFFICERS OF HEALTH.

BY

C. W. F. YOUNG, M.D., D.P.H.,

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London :

HARRISON AND SONS, ST. MARTIN'S LANE,

Printers in Ordinary to His Majesty.

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